HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE
PREPARED BY THE DEPARTMENT OF HEALTH
AND SOCIAL SECURITY

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HOSPITAL ABSTRACTS

Vol. 16 November, 1976 No. 11

HOSPITALS IN GREAT BRITAIN

See Abstract No. 1528

HOSPITALS IN OTHER COUNTRIES

See Abstract No. 1527

PLANNING, DESIGN AND CONSTRUCTION

1525. LLEWELYN-DAVIES, R. **Planning health facilities in developing countries—some case studies and their lessons.** *World Hospitals*, London, 1976, vol. 12, no. 3, pp. 159-163.

The first part of this paper discusses briefly the context within which hospital planning takes place in the developing countries. The second describes two projects, each illustrating a different aspect of the subject: (i) a health plan which included a hospital of 600 beds in Bahrain, with a rather detailed description of the management of the planning process; and (ii) a new teaching hospital and medical school in Thailand, with an account of how its planning was related to the economic, technical and manpower limitations in an area of scattered population. Two general problems for western planning consultants working in the developing countries are mentioned: (i) the rapid rate of change in those countries; and (ii) the structure of the client bodies with which the consultants work.

1526. PRUSSIN, J. A. **Applications of operational research to health care delivery systems and facilities planning.** *World Hospitals*, London, 1976, vol. 12, no. 3, pp. 186-192.

One of the methodologies now being used in health service planning involves the application of network analysis techniques. Depending upon the application for which the network analysis approach is to be used, various configurations of computerized models can be used to manipulate and analyse the relevant data. This paper outlines nine of these models: demographic, regional demand analysis, in-patient demand, ambulatory demand, cost-benefit analysis, dynamic planning, clinic operation and clinic financial. Diagrams illustrate each of the models and how they can be integrated.

1527. LANE, D. S. and MAZZOLA, G. **The community hospital as a focus for health planning.** *American Journal of Public Health.* Washington, 1976, May, vol. 66, no. 5, pp. 465-468.

Brookhaven Memorial Hospital, Patchogue, N.Y., has established a department of community medicine with responsibility for the planning and administration of

ambulatory care services, which provided the opportunity to develop a community hospital focus for health planning. The results of three years of planning experience included: description and monitoring of service area and user populations; setting up neighbourhood-based health centres; integration of emergency services with out-patient resources; and proposals for geriatric day care, ambulatory surgery and patient education. Activities are financed by the hospital if they are successful. An objective measure of effectiveness in terms of health promotion and cost savings has yet to be carried out. Working relationships have developed between the hospital department and local planning bodies, among them the comprehensive health planning agency, the county health services department, consumer groups and a university health services centre.

1528. NORTHERN IRELAND. NORTHERN HEALTH AND SOCIAL SERVICES BOARD. **Development of hospital services in the area of the Northern Health and Social Services Board: report of the strategic planning team.** Ballymena, Northern Health and Social Services Board, [1976], iv, 140pp.

The Northern Health and Social Services Board is responsible for one of the four areas into which Northern Ireland is divided for the administration of health and social services. This is the report of a team appointed to examine existing hospital services in the area and to recommend for the future a pattern of service which would best meet the needs of the people of the area. The report is in six sections: background; resources and their use; issues and problems; principles of hospital planning; possible solutions; and recommendations—the preferred solution. The recommendations cover: bed requirements; the ultimate pattern of services and functions of individual hospitals; estimated cost; staffing; and movement towards the final plan in the next decade.

HOSPITAL DESIGN

1529. FLOROS, C. **The morphological evolution of the postwar hospital.** *World Hospitals*, London, 1976, vol. 12, no. 3, pp. 177-182.

Hospitals have a functional role in society and to succeed they must at any time be in accordance with various conditions (ecological, technological, scientific, economic, social, cultural and political) in the society they serve. Since the Second World War, the time in which the set of conditions changed has been decreasing continuously. In order to overcome the resulting functional obsolescence, the 'adaptability movement' in hospital architecture is emerging. This paper outlines the limits to hospital building adaptability and examines the morphological evolution of the post-war hospital as an index of the need for the various aspects of adaptability. It then discusses the major classes of morphological evolution: the topological evolution at the inter-department level; the topological evolution at the departmental level; the evolution of departmental sizes; the evolution of room sizes; and the evolution of engineering services. Analysis of these helps us to understand the need for the various aspects of adaptability. Unless priorities are established on the basis of a hierarchy of adaptability, it will not be possible to move from the utopian adaptable hospital to the realizable adaptable hospital. Six diagrams are included.

1530. NIMPUNO, K. **A phased hospital development under conditions of limited resources.** *World Hospitals*, London, 1976, vol. 12, no. 3, pp. 171-176.

Hospital design for the developing countries tends to follow the trends of the richer countries. This paper proposes an alternative which involves a building which can be erected at extremely low cost, but which is prepared from the start for future standard improvements and extensions. After considering some of the real conditions of limited resources, the author describes a ward department which can be developed in three phases: (i) a traditional open ward in a single-storey pavilion with wide roofed verandahs; (ii) addition of a line of service rooms on one side and division into five six-bed rooms; and (iii) improvement of the other verandah to provide day space, additional sanitary facilities, etc. The layout of a hospital based on this type of design is discussed. These principles can also be used for the renewal of some of the old hospitals. Plans are included.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

See also Abstract No. 1537

1531. GUY'S HOSPITAL. **Guy's Tower.** London, Guy's Hospital, 1976, 83pp. £2.00

Guy's Tower forms the second phase of the redevelopment of Guy's Hospital, London. [See *Hospital Abstracts*, Vol. 1, Abstracts 349, 509, 1427 for papers on New Guy's House, the first phase.] It comprises in fact two linked towers, the larger, 'user' tower which is given over almost entirely to working spaces: wards, clinical and research laboratories and treatment units. The smaller, 'communications' tower contains some working space, but is largely taken up by lifts, service ducts and boiler flues. The communications tower is also connected to New Guy's House and will form the hub of the whole development when the third phase, a podium, is completed. This publication, which contains many coloured photographs and some diagrams, describes the new building in four sections: introduction; planning and design; clinical departments; and other departments.

1532. Inauguration du nouvel hôpital de La Source. **[Opening of the new La Source Hospital, Orleans.]** *Gestions Hospitalières*, Mantes, 1976, June/July, no. 157, pp. 511-512.

The new 676-bed La Source Hospital on the outskirts of Orléans [architects: Blareau, Guillaume, and Winter] consists of two seven-storey ward blocks linked by a central seven-storey technical block which houses laboratories, technical departments, operating theatres, out-patient departments, etc. The up-to-date equipment includes a 20 MEV linear accelerator linked to a computer and a radioactive isotope department which has a scintigraphiy camera and a whole body scanner. A cyclotron beam will shortly be available so that short-life isotopes can be used in the treatment of tumours. The surgical department is divided into traumatology and orthopaedics, visceral surgery, and vascular surgery. Two photographs but no plans are included.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract No. 1575 (Nurse training school)

1533. Nya köket och personalmatsalen vid länssjukhuset i Halmstad. **[New kitchen and staff dining room at the district hospital in Halmstad.]** *Sjukhuset*, Göteborg, 1976, vol. 53, no. 3, pp. 132-134.

Stage B 2 of the extension to Halmstad County Hospital, a new kitchen and canteen and a new department of pathology, has been completed at a total cost of s.kr. 16 million. The basement consists of a transport culvert, with a staff corridor above, connecting to the existing A 1 block. The ground floor houses the kitchen with ancillary rooms; the first floor contains the 250-place staff dining-room; and the pathology department occupies the second floor. The block is built of and faced with concrete, on a prefabricated concrete framework. The 1,700 sq.m. kitchen is equipped with two 9½-metre long tunnel dishwashers, a stationary high-pressure washer and a mechanical oven with a capacity of 1,100 pork chops an hour at the rate of 350 kg. per three to 14 minutes. Food preparation is assisted by machinery at all points, providing some 4,000 portions a day (1,800 to the hospital, 860 to nursing homes, 800 to the hospital staff, and the remaining 500 to outside institutions). The kitchens employ four catering managers, four cooks, and 16 whole-time and 32 part-time kitchen hands. One exterior and two interior photographs are included.

DESIGN OF SPECIAL HOSPITALS OR UNITS

See also Abstract No. 1656 (Casualty)

1534. MAYER, W. Integration oder Verwahrung? **[Integration or custody?]** *Bauen und Wohnen*, Zürich, 1976, June, vol. 30, no. 6, pp. 217-220.

It is estimated that some five million persons in Western Germany have a physical and/or mental handicap and that every year 200,000 have to give up work prematurely because of such a handicap. This paper is a plea, addressed to architects, for a more enlightened attitude towards the care of the handicapped who are divided into four main groups: the physically handicapped; the mentally handicapped; those with both physical and mental handicaps; and the 'socially handicapped' (persons with behavioural problems). The aim should be to keep the handicapped as far as possible within the community and in their own homes. Where it is essential for them to be cared for in a home or hospital these facilities should be sited in populated areas, should provide treatment and rehabilitation rather than custodial care, and should be as home-like and decentralized as possible.

1535. **Pinder Centre for Children, Sussex.** *Interior Design*, Morden, Surrey, 1976, Aug., p. 354.

A day centre for physically disabled children incorporating various therapeutic facilities has been established in 40 acres of park land at Avington Park House, near Winchester, Hampshire, by the Pinder Trust. The centre includes a hydrotherapy pool, changing accommodation, physiotherapy treatment room, music therapy room, activity room, staff room, entrance hall and a covered external entrance. Aviaries

were designed on the south facade following the angular form of the entrance extension to supplement the natural bird life. The changing accommodation is on the first floor, linked to the pool hall lobby by a lift. Separate temperature zones were designed to permit the children to progressively cool after a period in the hydrotherapy pool, enabling the building to be used on a cyclic basis by the children. The structural design of the centre is outlined. The walls are in white with ceilings of parana pine and hexagonal quarry tiles have been used in the entrance hall.

1536. Pflegeheime Auhof, Hilpoltstein bei Nürnberg. **[Auhof Nursing Home, Hilpoltstein near Nürnberg.]** *Bauen und Wohnen*, Zürich, 1976, June, vol. 30, no. 6, pp. 227-230.

The Auhof home at Hilpoltstein, near Nuremberg, provides accommodation and facilities for 480 mentally handicapped children and young people. The aim has been to provide conditions simulating community and family life with an entirely non-institutional atmosphere. At the centre of the 'village' is the main block (for administration, common areas, recreation facilities) and the ward block with intensive care unit. On the periphery are three residential blocks for patients, each of which has five 'group houses' accommodating 24 children or young people. These blocks have a common landscaped area around them while each house has its own play area and garden. There are also buildings for occupational therapy, a swimming bath and a gymnasium. The staff of 270 is housed in two blocks of houses. The paper is illustrated with a site plan, floor plans and 12 photographs.

OTHER ASPECTS: EVALUATION OF BUILDINGS

1537. BION, J. **Building illustrated: Charing Cross Hospital.** *Architect's Journal*, London, 1976, July 28, vol. 164, no. 30, pp. 165-176.

The new Charing Cross Hospital was opened in 1973. This is an appraisal of the building by a junior hospital doctor who trained at both the old and new hospitals. The appraisal covers: design considerations, accommodation and layout, the entrance, casualty department, out-patients, communications system, wards, laboratory block, operating theatres, service departments, and other facilities. Any conclusion about the success of the hospital will remain difficult until it has been completed and has had time to develop a tradition, but parts of the plan are outstanding. Plans and photographs are included.

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

1538. SJUKVÅRDENS OCH SOCIALVÅRDENS PLANERINGS- OCH RATIONALISERINGSINSTITUT. Driftinstruktioner för installationer i vårdbyggnader. **[Operating instructions for installations in medical buildings.]** (Spri råd 7.5) Stockholm, Spri, 1976, 36pp.

This advice note is a revision of one issued in 1971 [see *Hospital Abstracts*, Vol. 12,

Abstract 331]. Like its predecessor it clarifies the requirements for operating instructions for installations in hospitals, how they should be developed, and what they should contain.

TRANSPORT IN GENERAL

1539. Intern kommunikation i Hvidovre Hospital. **[Internal communications in Hvidovre Hospital.]** *Tidsskrift for danske Sygehuse*, København, 1976, April, vol. 52, pp. 63-65.

The five-storey Hvidovre Hospital (architects: Krohn and Hartvig Rasmussen) was opened in March 1976 at a cost of a thousand million kroner (£100 million). There is no internal pneumatic tube system, since the functions of such a system are built into the computer communications network. Departments order food and supplies of all kinds, medicines, sample-taking and treatment, via the 45 data terminals. A patient register designed for the M-70 system is built into the computer, and a computer to be connected to the system later will be programmed for stores administration and administrative statistics. Internal supplies transport (70 tons per day) is by a girder-suspended automated monorail, carrying about a thousand 600 litre (100 kg.) containers a day. Manual distribution is by 110 wheeled aluminium containers for catering purposes and 140 stores containers. The transport system is 2,700 m. in length, with 52 sets of points, 31 incoming and 31 outgoing stations, 500 electric motors and 1,400 circuit breakers. Its speed is one m./sec. in the horizontal direction, and $\frac{1}{2}$ m./sec. vertically and on bends. The longest time of transport is 10 minutes. Installation took 18 electricians and two supervisors one year. The paper is illustrated by a cut-away diagram of the entire system.

HEATING

1540. KENSETT, R. G. **Energy recovery systems for hospital use.** *Hospital Engineering*, Stevenage, 1976, July, vol. 30, pp. 3-12.

This paper is concerned with the energy that can be recovered after its apparent use, and natural energy (solar or wind energy). It is considered that by adopting some, if not all, of the methods discussed a saving of over 10 per cent of energy costs could be easily achieved. The methods considered are: (i) heat recovery from incineration; (ii) heat pipes, which offer an efficient method of heat transfer between any types of fluid; (iii) heat recovery in buildings; (iv) the thermal wheel which uses a hot fluid to heat another fluid; (v) the heat pump; and (vi) total energy schemes.

1541. MADSEN, T. L. Indeklimaet på vore sengestuer. **[The ward temperature.]** *Tidsskrift for danske Sygehuse*, København, 1976, May, vol. 52, pp. 82-85.

The thermal comfort of patients and staff in a patient's room depends on three parameters: level of activity; heat resistance of clothing; and room temperature. Since the latter must remain the same for all persons in the room whatever the activity and whatever clothing may be worn, thermal comfort depends ultimately on suitable clothing to correspond to the level of activity. A table compares the effect of various activities on heat balance and a formula is developed to show the appropriate insulation level of clothing for patients and various staff members (doctors, nurses,

etc.). It is suggested that a reasonable room temperature is 22°C and the appropriate level of clothing (or, in the case of bedfast patients, of duvet heat insulation) for patients and staff at this temperature is set out in the form of a chart. Relative humidity is not considered to be of any importance.

EQUIPMENT, FITTINGS, FURNITURE

INTERIOR DECORATION

1542. Lunds lasarett provar ny form av konstnärlig utsmyckning. **[Lund Hospital tries out a new form of artistic decoration.]** *Sjukhuset*, Göteborg, 1976, vol. 53, no. 4, p. 226.

Since August 1975, Lund University Hospital has provided patients with an 'artotheque' service whereby they may select the paintings displayed in their rooms. The service is paid for by the county council and operated by the librarians. It started on a trial basis on a surgical ward, with short-stay patients, and a rheumatology ward, with long-stay patients. The second phase of the experiment involved assessing patient reaction to a display of 30 nature photographs by well-known photographers. The pictures are easy to hang and take down, do not gather dust, and are easy to clean. Following positive reaction, the third phase commenced in the spring of 1976 on the dermatology wards: in addition to the 'artotheque', patients are also able to select photographs. The whole project is to be reviewed in October 1976.

BEDS, COTS, ETC.

1543. LARSSON, L. Hospitalsseng G.L. model 477. **[Hospital bed G.L. Model 477.]** *Tidsskrift for danske Sygehuse*, København, 1976, May, vol. 52, pp. 94-95.

The Danish hospital bed G.L. 477 is described by the sales manager of the firm producing it and illustrated. The bed, which is adapted to suit modern cleaning methods, conforms to the appropriate Danish Standard. The base of the bed is in three parts and can easily be adjusted by patient or nurse. The framework is of steel tubing with fittings for drips and transfusions. There are four wheels, 150 mm. in diameter, with central braking.

1544. PETERSEN, F. Präsentation of E.C. hospitalsseng model 2601. **[Presentation of the E.C. hospital bed, Model 2601.]** *Tidsskrift for danske Sygehuse*, København, 1976, May, vol. 52, pp. 96-97.

The Danish hospital bed E.C. 2601 is described and illustrated. The bed surface is in three sections with a built-in head support. The framework is of steel and there is a rubber shock absorber (29 by 45 mm.) running all round the bed just below mattress level. There is a mounting for an electric motor. Some measurements are: total length, 223 cm.; total width, 101 cm.; mattress, 85 by 205 cm.; height of bed base above floor, 65 cm.; wheel diameter, six inches; weight, 87 kg. Head and foot boards are removable and the side rails collapse to below mattress level. A list of hospitals where the bed is in use is given.

MEDICAL EQUIPMENT

1545. BUREAU, J. Une nouvelle politique d'approvisionnement des articles de pansement. **[A new supplies policy for dressings.]** *Gestions Hospitalières*, Mantes, 1976, June/July, no. 157, pp. 538-540.

Considerable savings in time and money have been achieved by replacing the gauze wadding for dressings and for cleansing, which had previously been purchased in 100-metre rolls and then cut and folded in the hospital, by a range of ready-made gauze pads, absorbent dressings, cotton wool balls, cellulose pads, and non-woven gloves. Other types of dressing such as absorbent dressings which include a layer of cellulose, absorbent non-adhesive dressings, and radio-detectable dressings for theatre use may be introduced later.

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract Nos. 1563, 1564, 1577

RECRUITMENT

See also Abstract Nos. 1565, 1566

1546. NELSON, M. J. **Labour market survey.** *Health Services Manpower Review*, Keele, 1976, May, vol. 2, no. 2, pp. 11-15.

An analysis of the labour market in the East Dorset Health District was carried out in 1973 to: (i) describe the existing work force; (ii) recommend alternative personnel policies in planning health care strategies; and (iii) examine the total labour market in terms of size and type and potential development. The background to the study is outlined. As a result of the survey a number of options were recommended that could improve the situation both for the short- and medium-term maintenance of the service and for its longer term development: (i) improvements in occupational health services; (ii) further investigation into the equipment/labour mix in catering and domestic services, medical records and medical laboratories; (iii) use of flexible working hours and improvement of working conditions; (iv) improved training; (v) specific advertising policy; (vi) employment policies to attract additional labour; and (vii) all policies should be subject to cost-benefit analysis so that when final decisions are made they are based on economic rather than emotional criteria. The lessons learnt regarding the methodology of the system have been put to good use in the region.

STAFF MANAGEMENT

See also Abstract Nos. 1554, 1567, 1568, 1674

1547. GOURLAY, J. R. **Staff appraisal.** *Health Services Manpower Review*, Keele, 1976, May, vol. 2, no. 2, pp. 16-24.

This paper is an attempt to develop some thoughts and ideas about staff appraisal,

which will be of interest and use to managers and personnel officers in the National Health Service. It should provide a basis for determining their reactions to any proposals for staff appraisal which emanate from the various national staff committees and may suggest how any system can be implemented so that it actually benefits individuals and the service. The following aspects are discussed: the objectives of staff appraisal; the need for performance standards; an approach to identifying potential; the style of appraisal interview; and the conduct of the interview.

1548. DYSON, R. and MESSAGE, M. **Industrial relations training for senior management: a new approach.** *Hospital and Health Services Review*, London, 1976, Aug., vol. 72, no. 8, pp. 269-272.

This paper describes a national pilot scheme of industrial relations training for senior managers undertaken jointly by the Health Services Management Centre, University of Birmingham, and the Department of Adult Education, University of Keele. The scheme had two elements: district workshops and unidisciplinary courses. In one district from each of the 14 regions in England workshops were held for a key group of eight: district administrator, district nursing officer, district finance officer, district personnel officer, district works officer, support services manager (or equivalent), one sector administrator and one medical member of the district management team. The pattern of operation of the group was left to the district. The unidisciplinary courses involved one manager from each of the districts and were seen as a means of preparing each manager to fulfil more effectively his specialist role within the workshop. The basic syllabus for the unidisciplinary courses is given. The method developed for evaluating the scheme is described.

STAFF TRAINING

See also Abstract Nos. 1548, 1557, 1569-1575

1549. BEATON-MAMAK, M. **Education that "turns on" staff.** *Dimensions in Health Service*, Toronto, 1976, July, vol. 53, no. 7, pp. 40-41.

Effective teaching methods have always been enhanced by the use of visual aids, and teaching hospitals throughout Canada have recognized the need for these aids in their teaching and training schemes. The advantage of using such aids are outlined. The use made of visual aids in various Canadian hospitals together with the staffing and organization of audiovisual departments is described. Hospital acceptance of the the scheme appears to be developing, and staff and patients benefit from the use of the aids provided.

1550. JACOBS, R. M., editor. **A flexible design for health professions education: medicine, dentistry, pharmacy, nursing, allied health.** New York & London, Wiley, 1976, xii, 260pp. £7.95

Flexibility involves personalized approaches to education which may entail: individualized curricula; individualized modes of instruction; flexible scheduling instructions; and flexible admissions. This volume presents the papers given at a conference in Iowa City in April 1975, which was held to identify the fundamental considerations and problems of flexibility in education for the health professions and

to provide information on practical approaches to the planning, implementation, management and evaluation of flexible programmes. The papers are arranged in five parts: (i) basic educational considerations and instructional strategies; (ii) an overview of individualized instructional practices in the major health professions; (iii) case studies on planning, implementation and evaluation; (iv) costs of flexibility; and (v) broader dimensions of flexibility.

STAFF WELFARE

See also Abstract Nos. 1574, 1624, 1626, 1645

1551. WILLIAMS, B. **Putting health and safety into practice.** *Health and Social Service Journal*, London, 1976, July 24, vol. 86, no. 4500, pp. 1346-1347.

The Health and Safety at Work Act which came into operation on 1 April 1975 posed many practical problems for those administering hospital services. The North West District of the Kensington and Chelsea and Westminster AHA(T) dealt with this problem by setting up a working party to look into the implications of the requirements of the Act. As a result a steering safety committee was established to: (i) identify safety problems and hazards; (ii) co-ordinate the information; (iii) formulate a safety policy; and (iv) establish the machinery for implementing the policy. The terms of reference of local sector safety committees to examine the principles of safety and transmit policy are outlined. The success of the procedures depends on the interest and determination to improve the level of safety and health of the staff in the district coupled with the ability of finance to satisfy any reasonable demands that are being made.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

1552. ROUSSEL, P. Le pouvoir de décision à l'hôpital. **[The power of decision making in the hospital.]** *Gestions Hospitalières*, Mantes, 1976, June/July, no. 157, pp. 529-536.

In theory the director of a French hospital is master of all he surveys. In practice, he lacks specialized knowledge of some aspects of modern hospital management and must become the leader of a team of specialists and technocrats. Moreover, he has no authority over the medical staff: they, like himself, are appointed directly by the Minister of Health. It would be better if the director had more say in matters of medical policy, since decisions as to what medical equipment to buy are sometimes made on irrational grounds. The director has a free hand in personnel matters and in this field he can develop a coherent policy and display his initiative.

1553. SCHERMERHORN, J. R. **Openness to interorganizational cooperation: a study of hospital administrators.** *Academy of Management Journal*, Atlanta, 1976, June, vol. 19, no. 2, pp. 225-236.

A study was carried out of the factors that determine the willingness of hospital

administrators to adopt programmes of hospital co-operation. Three hypotheses were developed: (i) openness to interhospital co-operation schemes will be directly related to administrators' perceptions of hospital performance distress; (ii) openness to such schemes will be positively related to activities bringing the administrator into contact with co-operation as a positive value; and (iii) openness to such schemes is positively related to administrator demonstrations of organizational boundary-spanning behaviour. A questionnaire designed to gather a variety of information was completed by 86 administrators. Study variables were established. The data fail to support hypothesis (i); there is instead an indication that openness is more likely when the administrator considers the hospital a high performer. The implications of the findings are discussed.

MEDICAL STAFF

1554. WILKINSON, R. T., TYLER, P. D. and VAREY, C. A. **Duty hours of young hospital doctors: effects on the quality of work.** *Journal of Occupational Psychology*, London, 1975, Dec., vol. 48, no. 4, pp. 219-229.

A questionnaire was sent to 6,500 junior and senior house officers in England, Scotland and Wales asking whether they thought their hours of duty were so long that they impaired their ability to work with adequate efficiency. Of the 2,452 who replied, 37.3 per cent chose either 'always' or 'often' in preference to 'occasionally', 'sometimes' or 'never'. The two highest ranking specialties were gynaecology and obstetrics, the two lowest pathology and psychiatry. It was the opinion of over one-third of the respondents that their ability to work was impaired by long hours of duty. Inefficiency, long hours of duty and lost sleep were reported as being higher in some specialties and hospitals than others and over half the respondents added their own comments and suggestions. The implication of these responses is a need for improved organization on the part of consultants and hospital administrators of the hours, conditions and methods of work of junior hospital doctors.

1555. KESSLER, M. S. **Doctors on boards: survey tracks a growing trend.** *Hospital Medical Staff*, Chicago, 1976, June, vol. 5, no. 6, pp. 11-16.

A study of medical staff organization was carried out by the American Hospital Association to obtain information about existing organizational patterns and to supply baseline data needed for observing subsequent trends in the way governing boards, administrators and medical staff work together. The response rate from non-federal, not-for-profit hospitals was 81 per cent. An analysis of the trend towards increased physician participation on hospital governing boards reveals that two-thirds of the hospitals have members of their medical staff on their boards. Formal links between governing board and medical staff are achieved through voting memberships. Governing boards with medical staff tend to be larger than those that do not include physicians.

1556. SCHULZ, R. **How to get doctors involved in governance, management.** *Hospital Medical Staff*, Chicago, 1976, June, vol. 5, no. 6, pp. 1-7.

During the 1960s a considerable change took place in attitudes towards the participation of medical staff in hospital administration in the United States. Three major developments likely to affect the role of doctors in adminstration are: (i)

government financing and control of health services; (ii) economic recession for all hospitals; and (iii) doctors are becoming more organized as units. To cope with these pressures the team approach with medical staff participation will need to be developed. Methods of achieving the team approach are outlined together with the requirements necessary for effective involvement of medical staff. Suggested approaches for hospitals to develop participatory management are considered: (i) need for open communication between administrators and doctors; (ii) management information should be openly shared, not used for the administrative section; (iii) doctors should be asked to help in the selection and recruitment of key management staff; and (iv) the aims and objectives of the hospital should be developed and explicitly defined with the participation of the medical staff.

NURSING STAFF

See also Abstract No. 1674

1557. ROBERTS, K. H., CERRUTI, N. L. and O'REILLY, C. A. **Changing perceptions of organizational communication: can short-term intervention help?** *Nursing Research*, New York, 1976, May/June, vol. 25, no. 3, pp. 197-200.

The need for training to alter staff attitudes regarding roles and job satisfaction, and to carry out job-related innovations as a result of the training was studied in the emergency room of a large West Coast metropolitan hospital. Surveys had previously indicated that patients were dissatisfied with the impersonal attitudes of the staff which often resulted in their being ignored or treated rudely. An intervention activity scheme was implemented for training the staff in four 2½- to three-hour sessions. Evaluation of the results of the training scheme revealed that on the whole satisfaction with work, pay and colleagues and overall job satisfaction improved, but some aspects of work were found to be more susceptible to change through intervention than others. The implications for nursing are outlined.

1558. ROTKOVITCH, R., editor. **Quality patient care and the role of the clinical nursing specialist.** New York & London, Wiley, 1976, xxiv, 189pp. £5.30.

All but two of the contributors to this book are on the nursing staff of Long Island Jewish-Hillside Medical Center, New Hyde Park, N.Y. They explain how the clinical nursing specialist practices in this 900-bed general hospital.

1559. PHILLIPS, M. S. **A nursing practice committee can enhance the management efficiency of a nursing department.** *Hospital Administration in Canada*, Don Mills, Ont., 1976, June, vol. 18, no. 6, pp. 76-78.

The nursing practice committee at the Clarke Institute of Psychiatry, Toronto, consists of representatives of all levels of staff within the nursing department and all clinical areas. At the time of its establishment, the committee's main purpose was to look at existing and expanding functions of the nursing staff with a view to establishing levels or categories of functioning. As the immediate clinical problems were resolved the committee found itself looking more and more at administrative problems. The committee has working links with the nursing education advisory committee, senior administrative nursing staff committee, nursing audit committee and nursing research

committee. Some of the committee's work, implementation of its decisions, and its particular value in long-range planning are described.

1560. GABRIELSON, R. C. **Two centuries of advancement: from untrained servant to skilled practitioner.** *Journal of Advanced Nursing*, Oxford, 1976, July, vol. 1, no. 4, pp. 265-272.

The history of nursing in America is traced over two centuries, from 1776, when nursing was nothing more than neighbourly assistance given by unprepared amateurs, to the present day, when nursing has reached a highly professional status. The influences of the revolutionary and civil wars, and legislative and social changes in nursing and the training of nurses are discussed. The major contributions made by the American Nurses' Association are outlined. Nurses in America have developed from an 'indefinite quantity' to the largest professional group among the health services.

1561. DAVIES, C. **Experience of dependency and control in work: the case of nurses.** *Journal of Advanced Nursing*, Oxford, 1976, July, vol. 1, no. 4, pp. 273-282.

The development of nursing in Britain is reviewed in the light of an assumption that professional groups will seek to gain autonomy and control over others. It is shown that nurses have pursued a different occupational strategy, elements of which include subordination to doctors, acceptance of a wide range of tasks and in particular, routinization of their work. Many historical and contemporary reasons are suggested for this. The strategy of nursing is viewed as a coherent solution to a particular set of circumstances and eventualities.

1562. Être . . . ou ne pas être infirmière générale. **[To be . . . or not to be a chief nursing officer.]** *Hospitalier*, Mantes, 1976, June/July, no. 325, pp. 27-29.

The post of chief nursing officer is a relatively new one in the French hospital system. A recently appointed chief nursing officer reflects on her new role. Her duties are those of educator, animator, adviser, co-ordinator, and administrator. She must avoid being too easily influenced or too bureaucratic, and must not abuse her authority for her own aggrandizement.

1563. MILLER, E. A. **Staffing with aid of dependency indices.** *Nursing Times*, London, 1976, Aug. 12, vol. 72, no. 32, occasional papers pp. 113-115.

A scheme using patient dependency indices for assessing the distribution of available staff, the rostering of staff and as an aid to the estimation of the number of staff required is outlined. Equations upon which the proposed method is based are presented and their derivation explained. A method of using the equations in the calculation of theoretical staff distribution is outlined. The equations are modified to reflect a model upon which valid assessments for staff requirements may be based. An example of a ward staff allocation sheet used with this method is included.

1564. KAPLAN, R. S. **Analysis and control of nurse staffing.** *Health Services Research*, Chicago, 1975, vol. 10, no. 3, pp. 278-296.

An information and reporting system based on a regression analysis of historical nurse staffing information is described. The aim of the statistical analysis is to obtain

an estimate of marginal nursing hours per patient around the point where patient units expect to operate, and to provide a basis for judging deviations from that point as excessive or normal. At the end of a reporting period an administrator can compare the predicted number of nursing hours with the actual number to determine whether nursing staff have been effectively used to meet the various patient loads. A concise monthly report is provided. The study reveals that standards and controls can be set without performing expensive and time-consuming studies.

1565. MERCER, G., TAGGART, L. and MOULD, C. **Nurses on the move.** *Health and Social Service Journal*, London, 1976, Aug. 7, vol. 86, no. 4502, pp. 1432-1433.

The problem of the high level of turnover of nurses within the National Health Service is discussed. A study, conducted by Leeds University, examined nurses' reasons for leaving the district general hospitals in West Yorkshire. Domestic and personal reasons were the most important factors, but 45 per cent of leavers mentioned the influence of work factors on their decisions. Dissatisfaction stemmed mainly from perceived lack of prospects, followed by a dislike of the type of supervision. Much of the movement between hospitals is encouraged by the increasing professionalism of staff and the need to obtain greater experience. A prime factor in the nursing turnover is domestic reasons, which demonstrates, in a predominantly female work force, the effect of changes in the role of women in society. There is evidence that more women are working for a longer time after marriage and combining work with raising a family. Any consideration of turnover should also examine the nature of employment offered to a nurse and the variety of opportunities available. There is also the topical relationship between the economic situation and the volume of labour turnover. Much of the movement of staff appears to be due to factors beyond the control of the individual hospitals. The turnover of nurses is not so much a problem of nurses within the National Health Service, but of women in work in general.

1566. WOLLARD, D. K. **Shared service organizes its own nursing pool.** *Hospitals*, Chicago, 1976, May 16, vol. 50, no. 10, pp. 83, 86, 89.

The Midtown Hospital Association, Denver, is a shared services organization composed of seven member hospitals. Since February 1973 it has developed a programme in which it employs nursing staff and provides them to member hospitals upon request to compensate for peak demand, leave and absenteeism. In the first 1½ years the Association's nurses covered 5,000 shifts at a saving of $20,000 compared with nurses from commercial agencies. The programme is managed by a director, a scheduling co-ordinator and a registered nurse consultant. The organization of the programme, the use made of its services, the orientation of its nurses and its scheduling procedures are described.

1567. CARR, A. J. **Work load and staffing on night duty.** *Nursing Times*, London, 1976, July 29, vol. 72, no. 30, occasional papers, pp. 105-108.

A study was carried out at the Royal Victoria Infirmary and Newcastle General Hospital to assess the staffing situation for night duty and how these two major hospitals in Newcastle related to each other. The areas considered were: (i) bed occupancy; (ii) staffing of hospitals; and (iii) the work undertaken by the night staff.

The results are presented in tables and diagrams. They may be compared with those of other provincial teaching hospitals or used to stimulate a new approach to assess the work of a night nurse.

1568. TRIVEDI, V. M. and WARNER, D. M. **A branch and bound algorithm for optimum allocation of float nurses.** *Management Science*, Providence, R.I., 1976, May, vol. 22, no. 9, pp. 972-981.

This paper discusses a methodology developed for allocation of float nurses in short-stay general hospitals. The severity of need for nursing care on a unit is measured from the perceptions of head nurses. A multivariate regression model is used to predict head nurses' perceptions at the beginning of a shift from certain auditable variables. The multivariate regressions are used as an objective function in a branch and bound allocation model designed to allocate float nurses before the start of a shift. The model is tested in five nursing units of a study hospital, and the results are presented.

1569. CHAPMAN, C. M. **Nursing—rhyme or reason?** *Nursing Times*, London, 1976, Aug. 5, vol. 72, no. 31, occasional paper, pp. 109-112.

Nurse tutors should test several assumptions about nursing as an activity and nurse training. These are: (i) nursing is a patient-centred activity; (ii) training is learner-centred and enhances the capacity of the learner to care; and (iii) the cost of nursing benefits are not borne by the patient. The assumptions are examined and found to be unsubstantiated by evidence of what actually happens during nurse training and the practice of nursing. Increased attention should be paid to the motivation of nurses, the teaching of nursing and communication skills and to the development of empathy. Possible problems of organization are discussed. Nurse education must also take into account the need for modification of personal goals, for development of perception, for knowledge, and to create a 'social exchange' between patient and nurse. The assumptions examined, however, indicate that nursing is rarely patient-centred; and that teaching frequently does not enhance the learners capacity to care, is not learner-centred and the patient often pays a high price in order to satisfy the nurses' needs.

1570. MACLEAN, D. E. **Recent advances in human genetics—implications for nursing education curriculum.** *Journal of Advanced Nursing*, Oxford, 1976, July, vol. 1, no. 4, pp. 303-310.

Genetic research and genetic counselling are rapidly expanding branches of health care and medicine. Few nurses are currently involved in this field, but facilities for genetic counselling are assuming important dimensions in preventive medicine. The problems posed by genetic counselling are outlined. Genetic information available to the student nurse is considered, together with the attitude of nurses to genetics. To enable a nurse to function adequately she will require the knowledge and training to ensure that she does not give inaccurate information or attempt to help patients regarding matters she knows little about. The author believes that nurses can play an important role in genetic counselling but unless they become aware of the fact very soon the opportunity for genetic counselling will have disappeared.

1571. RODGERS, J. A. **Today's preparation for tomorrow's practice: the Lehman College nursing programme.** *Journal of Advanced Nursing*, Oxford, 1976, July, vol. 1, no. 4, pp. 311-322.

The changing trends in nursing education in the United States are discussed, together with the importance of agreement on the level of entry into nursing and the need for a clear conceptional educational model. Lehman College, New York, has a training scheme which is used as a prototype for such a model. The nursing curriculum and the role of its graduates as primary care practitioners are discussed. The major problems encountered in the scheme together with the rewards and personal reactions are outlined.

1572. QUARTARO, E. G. and HUTCHINSON, R. R. **Interdisciplinary education for community health: the case for nursing and social work collaboration.** *Social Work in Health Care*, New York, 1976, vol. 1, no. 3, pp. 347-356.

A nurse tutor and a social work tutor at Seton Hall University, South Grange, N.J., developed an interdisciplinary team-taught course in community work for both social work and nursing students. The content of the course is outlined. Implications of interdisciplinary learning for students, the development of the department and its role within the university are considered. The major barriers to collaborative education are outlined. The potential value of interdisciplinary course work for all levels of nursing and social work education is demonstrated.

1573. VISSER, A. P. De rang en positie van praktijkbegeleiders. **[The rank and position of clinical tutors.]** *Ziekenhuis*, Utrecht, 1976, June 16, vol. 6, no. 12, pp. 320-321.

Research was carried out at a part-time course for nurse tutors into the comparative position of clinical tutors, who formed 25 per cent of the participants. Of the clinical tutors over half belonged to departmental staff, one-third to teaching staff and some 10 per cent to both. Differences in rank were not statistically significant. There were 27 per cent who thought their daily work carried higher responsibility than their rank indicated, 10 per cent thought the opposite and the remainder were satisfied with their status. After completion of the course the clinical tutor's prospects of improved position and salary were found to compare favourably with those of the other course members. Matters of age, sex, years of service, education, social class, size of hospital, and personal relationships were also compared. Though differences were insignificant on the whole, the clinical tutors seemed more aware of the tutorial aspects of their function and training.

1574. GRANDJEAN, B. D., AIKEN, L. H. and BONJEAN, C. M. **Professional autonomy and the work satisfaction of nursing educators.** *Nursing Research*, New York, 1976, May/June, vol. 25, no. 3, pp. 216-221.

The importance and satisfaction associated with 21 characteristics of a nursing school were examined using data from schools of nursing at four major state universities. The discrepancy between administrative authority and the professional's desire for autonomy is highly pronounced in university schools of nursing. A questionnaire listing 21 job characteristics was completed by 154 university lecturers listing ideal job characteristics and present satisfaction with their role. The results

indicated that teaching, support from colleagues, keeping up with current developments and autonomy in the department were more important than salary and fringe benefits. Satisfaction with the more important conditions was generally low, with lack of support in decision making being an important element of dissatisfaction. The relative importance of the 21 job characteristics was fairly even throughout the four nursing schools. It was suggested that increased professional autonomy would improve morale, recruitment, retention of staff and overall effectiveness in nursing education.

1575. LUNDBERG, T. Landstingets nya vårdskola i Sundsvall. **[The new county school of nursing in Sundsvall.]** *Sjukhuset*, Göteborg, 1976, vol. 53, no. 4, pp. 183, 185-186, 188, 190, 192.

The expansion of medical services which has occurred since the middle of the 1960s and the establishment of new categories of hospital staff has made it necessary for the courses offered at colleges of nursing to be divided into: (i) somatic—training sisters, nurses, auxiliaries and medical technicians; (ii) psychiatric; (iii) geriatric—training nurses right up to matron level; (iv) paediatric; and (v) mental health care. The school of nursing in Sundsvall has an annual intake of 1,400 pupils, and in 1977 it will be expanded to train physiotherapists and dental nurses. The new school (architect: E. Alm; artistic consultant: R. Abrahamsson) cost an estimated s.kr. 27,250,000; this sum includes teaching materials. Food from the hospital kitchen is served in the canteen, and there is also a cafeteria. The school is constructed as a square, three-storey building, allowing for expansion on all sides. One exterior and six interior photographs are included.

1576. JOHNSON, G. V. and TINGEY, S. **Matrix organization: blueprint of nursing care organization for the 80s.** *Hospital & Health Services Administration*, Chicago, 1976, vol. 21, no. 1, pp. 27-39.

Task-centred nursing, built upon the bureaucratic, industrial engineering model of organization, has taken the division of labour beyond the optimum point. Nursing staff have become patient care 'bureaucrats' concerned more with performing the set of tasks specified by their job description than with emphasizing patients' needs. Nurses must be freed from many of the administrative tasks associated with patient care. Improved co-ordination and communication between the departmental services involved in patient care is needed. This paper recommends, as an alternative, a matrix organizational structure built upon the concepts of job enrichment and patient centred nursing care. This approach would place the staff nurse in the leadership role of integrating and co-ordinating the efforts of the various team members providing services, tests and treatments to the patient. The nurse is freed from many of the administrative tasks associated with supervising specialized aides and nursing assistants. Perhaps even more important, however, is the opportunity to put back into the nurse's job the intrinsic motivators that will result in greater job satisfaction and improved patient care.

1577. WALSH, P. A. **'Mental illness', 'mental handicap' and the nursing service establishment—an alternative approach.** *Journal of Advanced Nursing*, Oxford, 1976, July, vol. 1, no. 4, pp. 283-292.

Recognition of the need to calculate nursing needs in terms of staff numbers is

long-standing and attempts to do this scientifically are not new. The majority of studies have been carried out using a medical model. Some of the problems and long-term consequences of former studies are discussed. Lack of suitable measures in the psychiatric and mental handicap fields has led to the imposition of arbitrary staffing levels. In order to be able to assess nursing needs in these fields it is suggested that an alternative to a medical model should be used. Comparisons between medical and behavioural models are drawn. Within a behavioural framework most of the non-specific factors of nursing can be measured. The advantages of the model in terms of practical application, quantifiable data and the ease with which the problem can be analysed are discussed. Methods of assessing outcome of nursing practice in relation to the institutional function are described. The need for training in behaviour modification for nurses is discussed, together with the appropriateness of using nurses in the proposed role.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract No. 1639

ORGANIZATION AND ADMINISTRATION

See also Abstracts Nos. 1552, 1556, 1576, 1589, 1616, 1655, 1662

1578. BROWN, M. **Contract management: latest development in the trend towards regionalization of hospital and health services.** *Hospital & Health Services Administration*, Chicago, 1976, vol. 21, no. 1, pp. 40- 59.

Contract management is a natural extension of multiple hospital systems and shared management services. This paper outlines the opportunities which have developed from the crises in health care, the trends leading to further systems integration, the growth of multiple hospital systems, the current status of multiple hospital systems in the United States, and the emerging contract management systems. The primary advantages and some possible disadvantages of contract management are discussed, together with the relation of systems to the issues of the day. It is concluded that, whatever the eventual shape of the health services, multiple unit systems seem destined to grow with contract management and other shared service systems.

GOVERNING BODIES, COMMITTEES

See Abstract Nos. 1555, 1556

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstracts Nos. 1540, 1553, 1578, 1666

1579. EWELL, C. M. **Evaluation of administrative and organizational effectiveness in hospitals.** *Hospitals & Health Services Administration*, Chicago, 1976, vol. 21, no. 1, pp. 9-26.

This paper examines some of the approaches that have been used to evaluate managerial and organizational effectiveness in hospitals. It concludes that a hospital

evaluation programme can be effectively accomplished through the use of an approach which recognizes the internal differences between professional and non-professional units, the need for formal and detailed assesment of needs, the requirement to measure on both intrinsic and extrinsic levels, the need to use measurable objectives at both the unit level and for the overall organization, recognition of community appraisal methods to measure institutional impact on the hospital's service areas, and the establishment of performance indicators which can be used for both inter- and intra-hospital evaluations.

1580. SCHWEITZER, S. O. and RAFFERTY, J. **Variations in hospital product: a comparative analysis of proprietary and voluntary hospitals.** *Inquiry*, Chicago, 1976, June, vol. 13, no. 2, pp. 158-166.

An earlier paper [see *Hospital Abstracts*, Vol. 15, Abstract 505] showed that proprietary hospitals fall far short of voluntary hospitals in providing both volume and range of hospital capital equipment. They are also selective in choosing cases that are admitted for treatment and do not admit a random mixture of cases as might be expected to enter a voluntary hospital. This paper pursues the issue further. The authors first develop a simple theoretical model that attempts to explain the proclivity of proprietary hospitals for low capital stock, and then predicts their behaviour with regard to how they use this limited capital. Some empirical tests of these predictions are presented and the implications of the findings are presented at some length.

1581. HANAU, C. Spesa corrente e risorse reali impiegate per il funzionamento di quattro ospedali europei—problemi di efficienza. **[Current costs and staff resources in the operation of four European hospitals—problems of efficiency.]** *Problemi della Sicurezza Sociale*, Roma, 1975, Nov./Dec., vol. 30, no. 6, pp. 825-871; summaries in French, English, German and Spanish pp. 872-875.

An attempt to compare running costs and staffing ratios in two Italian hospitals with Odense Hospital in Denmark and the Zürich Cantonal Hospital was somewhat vitiated by the fact that the Zürich Hospital is a much more highly specialized institution than the other three. Nonetheless it was clear that the Italian hospitals were relatively badly equipped and their staff less well qualified than in either Denmark or Switzerland. Out-patient departments were also much smaller in the Italian hospitals. There are 16 tables.

RUNNING COSTS

See also Abstract No. 1643

1582. AMERICAN HOSPITAL ASSOCIATION. **Organizing a cost containment committee in the hospital.** Chicago, American Hospital Association, 1976, vi, 47pp. $2.50.

Cost control requires the wholehearted and active support of all hospital staff; one way of enlisting their help and co-ordinating their efforts is through a cost containment committee. The first part of this publication is directed to the administrator and gives guidance on the planning and organization of a cost containment committee. The second section consists of resource materials for the committee itself. Examples of the forms which may be used are included.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 1659, 1675

1583. WHITMORE, G. A. **The inverse gaussian distribution as a model of hospital stay.** *Health Services Research*, Chicago, 1975, vol. 10, no. 3, pp. 297-302.

A new model for representing length of stay (LOS) is introduced. The inverse gaussian model appears to have considerable potential as a descriptive and theoretical model of LOS. A conceptual framework for hospital admissions is described together with technical details about the model, demonstrating its potential for application and comparing it with previous LOS models. The inverse gaussian model has a more realistic relationship between the time elapsed and the propensity for discharge. Unlike other LOS models the inverse gaussian model does admit the possibility that a patient may have a relapse during his hospital stay. It has potential both as a descriptive and prescriptive model of length of stay, especially in the setting of psychiatric hospitals.

1584. MUGHRABI, M. A. **The effects of selected demographic and clinical variables on the length of hospital stay.** *Hospital Administration in Canada*, Don Mills, Ont., 1976, June, vol. 18, no. 6, pp. 82-84, 86, 88.

A study of the discharge abstracts of adult in-patients with five selected diagnoses discharged from Ottawa Civic Hospital in 1973 was made to determine which variables had a significant influence on length of stay and what was the effect of each on its determination. The results are presented in six tables and are described. It seems reasonable to conclude from these results that although certain factors, such as severity, appear to be dominant in the determination of the length of stay of any diagnosis, the effect of other factors, such as patient's age and sex, day of admission, type of accommodation, etc., seems to be influenced by the disease under study. It may therefore be concluded that the diagnosis itself is the most important determinant of the length of stay. The implications of this finding, particularly on efforts to reduce hospital stay, are discussed and suggestions are made for further research.

1585. HARRIS, D. M. **Effect of population and health care environment on hospital utilization.** *Health Services Research*, Chicago, 1975, vol. 10, no. 3, pp. 229-243.

A path analytic test of a causal model linking a county population's demographic and socioeconomic characteristics, the method of delivering hospital services and the health care resources available to it with its rate of short-stay general hospital use is performed using data from 56 New York State counties. The results generally support the model and indicate the importance of an area's hospital bed supply as a method of understanding hospital admission rates. The path analysis reveals the patterns of direct and indirect effects of population and health care environment variables on hospital admission rates. It is possible to vary hospital use rates by altering supplies of doctors and hospital beds, indicating that supply can create its own demand rather than that demand leads to congruent levels of supply. Excessive hospital admissions and high costs can be reduced by controlling the number of beds available to a local

population and its doctors. Money that could have been spent on admissions could be used to help finance and develop more rational health care delivery systems that make more extensive use of ambulatory care. The implications of the results for those in the health care field are discussed.

1586. McCLAIN, J. O. **Bed planning using queuing theory models of hospital occupancy: a sensitivity analysis.** *Inquiry*, Chicago, 1976, June, vol. 13, no. 2, pp. 167-175.

This paper focuses on models for determining how many acute beds are needed to give adequate service to a specified series of patients without undue delay. This involves a trade-off between low average bed occupancy and shortages of beds due to unusually high demand. The paper refers only to a few of the simplest models, ignoring many important papers on forecasting and scheduling patients. It is in four sections: (i) a discussion of the general method and the primary references with a listing of the assumptions that are to be tested; (ii) a discussion of some of the statistical problems encountered in the use of simulation and an explanation of the methods of significance testing used; (iii) the results of a series of simulation experiments designed to test the assumptions; and (iv) a discussion of the results, directions for additional work and some anticipated difficulties.

1587. GAAG, J. van der, RUTTEN, F. F. H. and PRAAG, B. M. S. van. **Determinants of hospital utilization in the Netherlands.** *Health Services Research*, Chicago, 1975, vol. 10, no. 3, pp. 264-277.

Hospital use in the Netherlands is examined in a cross-section analysis of 1969 and 1971 data for 120 service regions. Elasticities of admissions with respect to bed supply and supply of general practitioners are calculated. The possibility of substituting first level care for hospital care is analysed. The Dutch government's plan to reduce the ratio of hospital beds to population—and increase the number of general practitioners—is seen to be feasible.

APPOINTMENT SYSTEMS, WAITING LISTS

See also Abstract Nos. 1625, 1668

1588. MADDEN, E. E. **A manual centralized outpatient appointment system.** *Hospital Topics*, Sarasota, Fla., 1976, May/June, vol. 54, no. 3, pp. 48-52.

This paper describes the centralized out-patient appointment system introduced in the United States Public Health Service Hospital, New Orleans. The appointment systems used for the various clinics are individually designed with the department chief, taking into account the number and type of patients that can be seen in each session based on the average time required for each patient. The procedures for scheduling appointments, cancelling appointments and following up unkept appointments are described. The major advantages of the system over a computerized one are that it is cheaper, does not require specialized staff and is less likely to fail; it cannot however retrieve information in the way that a computerized system can.

DATA PROCESSING

See also Abstract Nos. 1593, 1605, 1625, 1629, 1634, 1636, 1640, 1653, 1667, 1676

1589. BUHAUG, H. and others. Informasjonsbehandling i sykehus. **[The hospital information system.]** *Sykehuset*, Oslo, 1976, vol. 39, no. 3, pp. 103-113.

A 16-week information processing research project at Molde County Hospital concluded in March 1976. Hospital information is divided between the day-to-day operative information required to run the system efficiently, and management information regarding what has been done and how it can be improved. Most hospitals now compute operative information; this project investigated ways of analysing interdependencies between the various factors affecting the running of a hospital. A patient's progress through the system can be described in the form of a network in which decisions have to be made on the basis of information collected, the result of each decision being an alternative pathway. The system was introduced on a surgical ward, and was operated in parallel with the existing information system. It consisted of the following main elements: (i) experimental case notes; (ii) recording of data in absence of doctor; and (iii) computer routines for keeping notes up to date. The material, covering 172 patients, was subsequently analysed, and 30 networks were assessed by a team of surgeons. On the basis of the network models, sensitivity analyses were carried out to investigate the effect on treatment of delays at various points in the patient flow. The results of these analyses confirmed the viability of the automatically constructed networks, and their applicability to other medical problems can now be investigated.

LIBRARIES

1590. BROWN, M. C. **The multiple services of a hospital library.** *Dimensions in Health Service*, Toronto, 1976, July, vol. 53, no. 7, pp. 26-28.

Ottawa Civic Hospital provides clinical experience for undergraduate and postgraduate medical staff, nursing students, technicians and paramedical staff. In 1970 the medical library and nursing library were merged under one professional librarian. The reorganization of the medical library is outlined. The book collection was weeded and the library physically reorganized. The staffing of the library is discussed, together with the building up of the book collections. The library is no longer open 24 hours a day, thus significantly reducing book losses. The concept of the library network is new to hospital libraries. A need is felt in Ontario for a shared library service, and this is being considered; improved information services will greatly help all health service staff.

1591. KOUGHAN, W. P. **Hospital library standards: an administrator's view.** *Special Libraries*, New York, 1975, Dec., vol. 66, no. 12, pp. 588-591.

Many organizations have published hospital library standards, but the only library standards of which hospital adminstrators in the United States are aware are those published by the Joint Commission on Accreditation of Hospitals. These standards are analysed. They are seen to be weak and meaningless and have a negative effect upon hospital administrators and librarians. The librarian must take positive action to

improve the situation and bring the library to the attention of the administrator. Recommendations for improving the current state of hospital libraries on a national basis are outlined. Updating library standards and developing new approaches will never be completed unless the work is begun by a professional hospital librarian.

ORGANIZATION AND METHODS, WORK STUDY

See Abstract No. 1654

MEDICAL RECORDS

See also Abstract Nos. 1635, 1636, 1667

1592. PATEL, A. R. and others. **Scottish hospital morbidity data.** *Health Bulletin*, Edinburgh, 1976, July, vol. 34, no. 4, pp. 215-228.

Investigations of the accuracy of the diagnoses in the printouts of the Scottish Hospital Morbidity Data revealed numerous errors and omissions. These arose largely because the diagnostic entries on the case record summary (admission and discharge form) were not completed by the medical staff at the time of discharge. The information on the SMR1 form used for compilation of the printout was not verified by the doctor and was often provided by non-medical staff under circumstances which led to considerable inaccuracies. The medical professorial clinical unit at the Western Infirmary instituted a regular monthly surveillance and the results were reported openly to all. Particular attention was paid to the recording of diagnoses, the medical staff involved in the care of the patient, the editing of the case records, the achievement of a post-mortem examination in fatal cases, and the time taken to complete a discharge letter to the general practitioner. Considerable progress was forthcoming but certain limitations persisted. Much more attention must be given to these problems and improvement in the collection of data at the primary ward level before transcription into the computer system.

1593. WAGNER, G. **Uses of hospital discharge summary forms in the European region: results of an enquiry.** Copenhagen, World Health Organization, Regional Office for Europe, 1976, ii, 65pp.

This report presents and discusses findings from a survey on hospital discharge summary projects conducted by the European Region of the World Health Organization. It covers 91 such projects and is based on replies to a questionnaire sent to national health or hospital authorities in mid-1974. The report includes recommendations for a minimum discharge summary data set, a bibliography with 100 references, detailed tabulations of the replies, a copy of the questionnaire used, and samples of discharge summary forms.

HOSPITAL STATISTICS

See Abstract Nos. 1592, 1593

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

1594. GIROUX, F. **The legal powers of security personnel.** *Dimensions in Health Service*, Toronto, 1976, July, vol. 53, no. 7, pp. 30-32.

There are several areas of the law which may apply to a security force in a medical complex in Canada. These are: (i) federal (criminal) law; (ii) provincial law; (iii) municipal by-laws; (iv) administrative policies; and (v) routine orders. A security guard must review all the facts before making an arrest. The law governing arrest in Canada is considered, together with the use of force. Search procedures are outlined. Methods for the prevention of abduction are discussed. The hospital security officer, with increased training, can be more equipped to deal with the internal functions of a hospital complex than a policeman and consequently be better prepared to combat the increasing number of thefts, pilfering and vandalism now occurring.

FINANCE AND ACCOUNTING

FINANCE

1595. KARPOFF, P. **Cutting the cost of medical assistance.** *Policy Analysis*, Berkeley, Calif., 1976, vol. 2, no. 1, pp. 161-163.

Costs of publicly-financed medical assistance in the United States have soared for several reasons: (i) prices for medical care have risen sharply reflecting increased demands; (ii) the medical needs of low-income groups have been greater than expected; and (iii) high use of services financed by medical assistance. The provision of free services removes the chief deterrent to overuse. The cost of Medicaid can be substantially cut by persuading people to limit their use of discretionary medical services. The creation of a financial incentive system to persuade the poor to weigh the value of medical services against other consumer advantages is outlined.

HOSPITAL ACCOUNTING

See Abstract No. 1598

SUPPLIES AND STORES

SUPPLIES

See Abstract No. 1545

PURCHASING

See Abstract No. 1545

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

1596. American Hospital Association. **Shared food services in health care institutions.** Chicago, American Hospital Association, 1976, ix, 89pp. $8.50

This publication first presents the findings of a survey questionnaire completed by 22.6 per cent of the 1,250 members of the American Society for Hospital Food Service Administrators. It then discusses: the future for shared services; feasibility studies and the planning process; patient service systems; management systems; and economic variables. A final chapter presents case studies of existing systems.

1597. Centrale keuken van Sint Franciscus Gasthuis te Rotterdam. **[The central kitchen of the Saint Francis Hospital, Rotterdam.]** *Voeding- en Huishoudgids*, Amsterdam, 1976, vol. 43, no. 522, pp. 330-335.

On admission each patient receives a 'permanent' menu card, which states choice of menus, snacks, and serving times and explains how the patient can choose his meals including special diets, and a 'weekly' menu card, which states the available menus for a week. Each day a nurse enters the patient's choice for the following day in code on punch cards, one for each meal, which are sent before 1500 by pneumatic tube to the catering administration where they are sorted and colour-coded according to diet. In place of ward kitchens there are two central service kitchens for snacks, etc., each operating a small food lift. The main food transport is on trolleys, one for each room, via the automatic 1,100m. rail transport system. The main kitchen uses 'Gastronorm' standard equipment and is divided into a kitchen for ordinary meals, a special diet kitchen, a food preparation section, a cold meal kitchen with adjacent cool- and deep-freeze rooms, and an area for plating meals including a transport platform from where meals are loaded onto trolleys. Washing-up is done centrally. The paper includes a floor plan of the kitchen with list of equipment, 13 photographs and examples of a punch card and a menu card.

1598. American Society for Hospital Food Service Administrators. **Determination and allocation of food service costs.** Chicago, American Hospital Association, 1976, iii, 18pp. $4.50

This booklet describes a method for identifying and separating patient and non-patient catering costs and for preparing catering performance reports. The forms used are reproduced and detailed instructions are given for their completion.

1599. Speht, A. **Freezing costs with frozen food.** *Health and Social Service Journal*, London, 1976, July 31, vol. 86, no. 4501, pp. 1390-1391.

The use of pre-cooked frozen food (PCFF) has been recognized in all branches of institutional and industrial catering except hospitals. The Department of Health and Social Security set up a PCFF pilot project in Newcastle in 1972, and on the predictions available it would appear that hospitals will find cook-freeze financially viable. The predicted operating costs and number of operating staff per sector are outlined. The advantages of such a system are: (i) better use of equipment and staff; (ii) centralization

of cooking operations; (iii) greater retention of nutritional value; (iv) less risk of bacteriological hazards; (v) a higher rate of acceptability compared with hot transported food; (vi) final heating needs no catering skills; (vii) a wider range of dishes can be offered; and (viii) catering staff problems of illness and absence are less critical. By separating production from consumption and holding the meals in a cold store 'buffer' it is possible to produce meals evenly during the working day. The increased capital costs of a PCFF system can only be offset by an increase in output or by labour savings. Examples of savings made on various PCFF projects are outlined. Continued pressure to keep costs down, and to create alternatives for mass catering, indicates that central production kitchens divorced from consumption areas appear to be the ideal answer, and this is only possible through a PCFF system.

KITCHENS

See Abstract Nos. 1533, 1597

CANTEENS, STAFF DINING-ROOMS

See Abstract No. 1533

LAUNDRIES AND LINEN SERVICE

HOSPITAL LINEN AND TEXTILES

See also Abstract No. 1607

1600. ALBRECHTSEN, E. H. Dyner og puder—naturfyld eller kunstfibre? **[Duvets and pillows—filled with natural or man-made fibre?]** *Tidsskrift for danske Sygehuse*, København, 1976, May, vol. 52, pp. 86-88.

The advantages and disadvantages of natural and synthetic materials for filling duvets and pillows for hospital use are set out. The natural materials discussed are: goose, duck and hens' feathers; and duck and goose down. Of the synthetic fibres used special mention is made of dacron fibre and Cordelan. The latter is a Japanese product which has the following advantages: flame resistant; high water-absorbing properties; gives off significantly less smoke and poisonous gases than other synthetic fibres; non-allergic; soft; less static electricity than any other synthetic fibre; and hard wearing.

HYGIENE IN THE HOSPITAL

1601. WILIE, B. Ergebnisse krankenhaushygienischer Umgebungsuntersuchungen und ihre Konsequenz. **[Results of hygiene investigations in hospitals and their consequences.]** *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene*, Stuttgart, 1976, July, vol. 162, nos. 1-12, pp. 221-224; summary in English p. 221.

An investigation into the hygienic state of a number of hospitals in Western Germany has revealed many deficiencies, some of them serious. The following measures, which

are considered to be urgently necessary, are put forward to improve matters: each hospital should have a hygiene programme prepared by an expert in collaboration with the medical and nursing chiefs; the setting up of a hygiene committee; a specialist doctor, with no other duties, to control hygiene within a hospital; necessary structural alterations and/or improvement of technical equipment, particularly in older hospitals; more attention to hygiene in medical education; legal requirements for new buildings and the collaboration of hygienists at the planning stage; and definitive statutory regulations on hospital hygiene.

HOSPITAL INFECTIONS

1602. SIMCHEN, E. and others. **Infections in the surgical departments of a teaching hospital in Jerusalem.** *Israel Journal of Medical Sciences*, Jerusalem, 1976, June, vol. 12, no. 6, pp. 573-582.

Surveillance programmes for hospital-associated infections at the Hadassah University Hospital, Jerusalem, have been carried out since 1970. A study was made of 7,339 patients discharged from six surgical departments between January 1972 and June 1973. The criteria for infection were defined and monitored by nurse-epidemiologists with the co-operation of the surgical staff. Results indicated that 547 patients acquired 636 infections, a rate of 7.5 infected patients per 100 discharges. Several factors appeared to increase the risk of acquiring a hospital infection: (i) presence of infection on admission; (ii) the age of the patient; and (iii) certain surgical procedures, such as gall-bladder and small and large bowel operations. Most of the infections on admission were at the site of the proposed operation and thus increased the risk of the development of post-operative wound infection. The surveillance programme is being currently continued in wards where measures to reduce infection have been established. The surveillance teams working within the wards are used both in an advisory and a data-collecting capacity, and provide a means of evaluating the effect of the measures introduced and the extent of the reduction in infection rates.

SOURCES OF INFECTION

1603. GIBSON, G. L. **The bedpan and cross-infection.** *Nursing Times*, London, 1976, Aug. 5, vol. 72, no. 31, pp. 1198-1200.

The giving of bedpans is still an important feature of nursing care, and systems of treatment of bedpans may be divided into those for disposable bedpans and those for non-disposable bedpans. The treatment for non-disposable steel or plastic bedpans is outlined; many processes do little or nothing to disinfect the bedpan after the initial cleaning. Only machines which use a cycle which includes a hot water period followed by an exposure to steam can be regarded as satisfactory. Disposable bedpan systems offer a disposable papier-mâché liner supported by a glass fibre or plastic support. The liner is disposed of, but the support, when it is returned to the patient, is in practice contaminated by faecal infections. Recommendations are made for a completely disposable bedpan. Potential hazards to nurses are outlined, and suggestions given for cleaning bedpans. A straightforward infection may be transferred by careless handling. The nurse must not forget the significant risk to herself and allow familiarity to breed contempt or carelessness.

1604. BAIRD, R. M. and SHOOTER, R. A. *Pseudomonas aeruginosa* **infections associated with use of contaminated medicaments.** *British Medical Journal*, London, 1976, Aug. 7, vol. ii, pp. 349-350.

Pharmaceutical products made in the hospital may become inadvertently contaminated with strains of *Pseudomonas aeruginosa* from the pharmacy. Nine wards of St. Bartholomew's Hospital were studied over two months and three hospital-prepared medicaments (pine disinfectant, chlorxylenol disinfectant and a handcream) and the patients were examined for *Ps. aeruginosa*. Sixty-six patients were studied to observe the effect of using contaminated medicaments; *Ps. aeruginosa* was recovered from 29 patients. The results indicated that strains of *Ps. aeruginosa* could survive in the three medicaments for long periods. Strains from five of the 29 patients were shown to be very similar to strains previously found in the contaminated disinfectants and handcream. The continued use of contaminated medicaments may build up a reservoir of infection in a ward which may act as a potential threat to patients, particularly the elderly, the debilitated or those taking broad-spectrum antibiotics, antimetabolite drugs or steroid drugs.

PREVENTION AND CONTROL

See also Abstract Nos. 1603, 1631

1605. GOOCH, J. J. and WOOD, D. D. **Computerized system analyzes epidemiological data.** *Hospitals*, Chicago, 1976, May 16, vol. 50, no. 10, pp. 91-93, 95-96.

The computerized system of infection surveillance currently used at St. Joseph Mercy Hospital, Ann Arbor, Mich., is described. Upon admission, patient and clinical data abstracted from the admitting sheet are entered into the hospital's multi-update census system. The system which is used to identify and control all patient movement, prints out five times a day the current status of each room and bed, admissions, discharges and transfers within the past 24 hours. Any infections identified by the epidemiologist are coded and entered into the census. Every 24 hours the system produces an infection control report which identifies patients with infections. The methods used to collect information regarding infections are described, together with the surveillance form, data transmission forms and infection report form. Advantages of the system are: quick assimilation, computation and dissemination of information; identification of infection problems and problem areas; and ability to retrieve data necessary for a complete establishment of a hypothesis regarding cause and effect implicated by an epidemiological investigation.

1606. PLUECKHAHN, V. D. and COLLINS, R. B. **Hexachlorophene emulsions and antiseptic skin care of newborn infants.** *Medical Journal of Australia*, Glebe, 1976, May 29, vol. i, no. 22, pp. 815-819.

A study to determine whether newborn infants are in any way adversely affected by the use of three per cent hexachlorophane emulsions in antiseptic skin care in maternity hospitals was carried out at the Royal Women's Hospital, Melbourne, and the Royal Children's Hospital, Melbourne. Analysis of 81,756 live births and 858 infant deaths

during 1959 to 1969 revealed 63 instances of central nervous system vacuolation. The methods of skin care at both hospitals are outlined. Long-term clinical follow-up studies show that should central nervous system vacuolation occur in premature infants there is no resultant detriment to their immediate clinical progress and physical and neurological development. Normal newborn infants weighing more than 2,000g. do not develop such central nervous system vacuolation. The results indicate that there is no rationale for restricting the dermal use of three per cent hexachlorophane emulsions in the care of normal infants and the benefits of such use far outweigh any possible risks from central nervous system vacuolation.

1607. ERIKSEN, K. R. and others. Sengetøjsdesinfektion. **[Bed linen disinfection.]** *Tidsskrift for danske Sygehuse*, København, 1976, May, vol. 52, pp. 97-101.

The different methods of disinfecting hospital bedding are described and compared. They include dry heat, formalin, and steam disinfection. From a survey of practice in a number of hospitals and from the authors' own studies it is shown that the various disinfection methods are not equally effective. In particular, dry heat at a temperature of 120°C is of little value. The conclusion is that, without any doubt, the most effective and the most practical method for disinfecting mattresses, duvets and pillows is with steam at a temperature of below 100°C in special ovens. This method conserves the bedding, takes only 30 to 50 minutes, and at the end of the process bedding is completely dry. Another advantage is that the powerful vacuum removes dust from mattresses thus obviating the need for pre-disinfection vacuum cleaning.

HYGIENE IN THE OPERATING THEATRE

See also Abstract No. 1602

1608. RAAHAVE, D. **Effect of plastic skin and wound drapes on the density of bacteria in operation wounds.** *British Journal of Surgery*, Bristol, 1976, June, vol. 63, no. 6, pp. 421-426.

Operation wounds were sampled quantitatively by the velvet pad rinse technique to determine the effect of impervious plastic skin and wound drapes on the density of bacteria. A controlled trial (clean operations) revealed no significant difference in bacterial density when adhesive plastic drapes were used and when they were not used. Bacterial density in the wounds did not differ significantly from that on the adjacent skin; both densities were slightly higher at the end of operation than at the beginning. Within the operation wound, sites of low bacterial density were close to sites with a high density. In another controlled trial (potentially contaminated operations) plastic wound drapes gave an equally high reduction in bacterial density before closure of laparotomy wounds after either truncal vagotomy and pyloroplasty or gastric and colorectal operations. It is concluded that plastic skin drapes were without influence on the species and density of bacteria in operation wounds. Plastic wound drapes, on the other hand, considerably reduced not only exogenous but in particular endogenous bacteria, which otherwise would have remained in the wounds.

DISPOSAL OF WASTE

1609. BRUNIER, J. L'incinération à l'hôpital. **[Incineration in the hospital.]** *Techniques Hospitalières*, Paris, 1976, June/July, vol. 31, nos. 369/370, pp. 69-73; summaries in English, German, Spanish and Italian, p. 73.

The processes of incineration are explained for the non-specialist in terms of calorific values, density, and the chemical nature of the different waste products likely to require incineration in hospitals. The different types of incinerator are described; the type recommended has three chambers (combusion, post-combustion, and expansion), is acid-resistant, and has an efficient apparatus for operating the incinerator doors. French anti-pollution laws relating to the use of incinerators are cited. Although most hospitals operate their own incinerators, it is possible to contract out this service, and a specimen contract between Bordeaux Regional Hospital and a private contractor for the collection and incineration of refuse is reproduced.

SAFETY MEASURES

ACCIDENTS, GENERALLY

See Abstract No. 1551

ACCIDENTS IN GAS AND DRUG ADMINISTRATION

See Abstract No. 1626

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 1618, 1628, 1647, 1660, 1661

1610. MCINTOSH, J. **Patients' awareness and desire for information about diagnosed but undisclosed malignant disease.** *Lancet*, London, 1976, Aug. 7, vol. ii, pp. 300-303.

In order to assess the patients' knowledge of their illness and their desire for information about it, 74 patients were interviewed and observed in a ward for the treatment of malignant diseases at the Aberdeen Royal Infirmary. While 88 per cent knew or suspected they had a malignant tumour on admission to the ward, the majority of them had no desire to increase that knowledge. The fact that the diagnosis was not revealed to them allowed many patients to maintain the hope that they might not have cancer or that the outlook might be favourable. In practice the majority of doctors opt for either a policy of telling nearly all their patients or of not telling anyone. The advantage lies in the fact that they avoid the making of decisions in individual cases. A policy of

routinely informing patients would cause distress to many and would also be unnecessary given that most patients are able to obtain the information they want independently of having it formally told them.

1611. SMITH, M. C. **Patient responses to being transferred during hospitalization.** *Nursing Research*, New York, 1976, May/June, vol. 25, no. 3, pp. 192-196.

A study of transfers of patients within a hospital showed that an average of 24 patients were transferred each day; out of a total of 520 transfers 62 per cent were studied. Eight investigators carried out the study with a nurse research consultant. The results indicated that within-hospital transfers were a greater problem for the staff than for the patients. There were no differences for sex, previous hospital stays, frequency of transfer, age or clinical nursing unit from which the patients were transferred. Recommendations are made for further investigations into what the patient perceives as his territory and what procedures should be carried out between patient and nurse to validate perceptions regarding the reason and reaction to the transfer.

1612. THEILGAARD, S. and LARSEN, I. S. Ny, ensartet patientinformation i Københavns Amt: patientvejledningen pointerer retten til at stille spørgsmål. **[New information leaflets for all hospital patients in County of Copenhagen: leaflets emphasize the right to ask questions.]** *Sygeplejersken*, København, 1976, June, vol. 76, no. 25, pp. 12-15.

It was decided in 1972 to publish leaflets to be given to all adult patients entering hospital throughout the County of Copenhagen, to replace the individual leaflets issued by the different hospitals, which were couched in rather academic terms. One leaflet is entitled 'Practical information prior to your admission to hospital', and the other 'Practical information during your stay in hospital'. A third leaflet may be completed by the individual ward, to give local details. A staff committee prepared the draft leaflets, which were tried out for three months on three wards, and the final leaflet was designed on the basis of this experience. The pre-admission leaflet is an eight-page booklet weighing 10 g. with envelope. It informs the patients about admission procedures, what to bring with them, why various tests are carried out and why some of them take time, and what service facilities are available in the hospital. The 12-page leaflet given on admission (illustrated) describes hospital routines in general and in detail, points out how smoking can irritate non-smokers, and prepares the patients for the presence of medical students on the wards. Other chapters describe rehabilitation, the almoner's office, recreation and discharge. In the foreword and in many other parts of the leaflet patients are urged to ask staff or doctors about any point on which they may be in doubt. The leaflets are to be revised in a year's time.

1613. PARKIN, D. M. **Survey of the success of communications between hospital staff and patients.** *Public Health*, London, 1976, July, vol. 90, no. 5, pp. 203-209.

A survey of discharged hospital patients from four general medical wards of a Scottish teaching hospital sought their opinions on the adequacy of the information which they had received during their stay. Of the 134 patients in the survey, 57 per cent expressed some degree of dissatisfaction. Half of the group knew their own diagnosis and less than 30 per cent could give the names or purposes of all the drugs

that had been prescribed for them. Over one-third of the patients did not know how to manage their own drug therapy at home. Recommendations for improving patient communication are outlined.

HOSPITAL SOCIAL WORK

See also Abstract No. 1572

1614. VOLLAND, P. **Social work information and accountability systems in a hospital setting.** *Social Work in Health Care*, New York, 1976, vol. 1, no. 3, pp. 277-285.

The development of an information and accountability system in the department of social work, Johns Hopkins Hospital, is outlined. The objectives of the system were to: (i) establish and define social work services; (ii) communicate these services to all other health care professionals; (iii) measure the outcome of these services; and (iv) develop an information system that lays a basis for developing and carrying out research projects on health care problems pertinent to social work interventions. The system is described, together with its potential value for establishing research projects. Collaboration within the social work department is essential for implementing standards to be used in reviewing the delivery of social work services.

1615. KRELL, G. I. **Hospital social work should be more than a 9-to-5 position.** *Hospitals*, Chicago, 1976, May 16, vol. 50, no. 10, pp. 99-100, 102, 104.

A general hospital's social work department normally functions from 0900 to 1700 Monday to Friday. But the need for hospitals to achieve effective utilization, to ensure high quality and on-going care and to deal with the problems of the chronic sick creates a need for social work outside of these hours. Patients' needs can be divided into two categories: (i) social emergency needs, including protective services, psychosocial services and community resources services; and (ii) continuing needs, including hospital utilization services, after-care services, emergency department non-social emergency services, social work input services and patient advocacy services. The content of each type of service is outlined. The social work after-hours services of Boston City Hospital are described and guidelines for the staffing of such a service are given.

1616. SPANO, R. M. and LUND, S. H. **Management by objectives in a hospital social service unit.** *Social Work in Health Care*, New York, 1976, vol. 1, no. 3, pp. 267-276.

A management by objectives (MBO) system has been installed in the social service department of the University of Minnesota Hospitals. Two additions were made to the usual MBO format: (i) a statement of programme philosophy; and (ii) a statement of essential programme functions. Staff reaction has been mixed while the hospital administration has been uniformly in favour of the system. The MBO system will be integrated with a management information system. MBO meets the organizational needs for effective planning, management of resources and control, while at the same time maximizing staff input into the overall operation.

1617. NASON, F. and DELBANCO, T. L. **Soft services: a major, cost-effective component of primary medical care.** *Social Work in Health Care*, New York, 1976, vol. 1, no. 3, pp. 297-308.

The Beth Israel Ambulatory Care Center (BIAC) has incorporated casework into a new hospital-based primary care scheme. This scheme has entirely replaced the general medical, paediatric and obstetrics and gynaecology clinics as the primary care provider for all patients who had previously been treated in these clinics. The role of the social worker in the primary care team in promoting comprehensive medical care is outlined together with examples of how the use of a social worker can contribute not only to more appropriate treatment and patient management, but also to reduction of the long-range cost to the user of the service. Recommendations are also made for further areas of research.

HOSPITAL CARE

See also Abstract Nos. 1558, 1576, 1648, 1664, 1670

1618. **Behandling—är den alltid till patientens bästa? [Treatment—is it always the best for the patient.]** *Sjukhuset*, Göteborg, 1976, vol. 53, no. 3, pp. 125-130.

A conference discussing the question whether medical treatment was always in the patient's best interests concluded that although it was possible to point to various situations where the ideal situation did not apply, the patient's interests were by and large the doctor's main concern. The range of medical services offered to the public has expanded enormously over the last generation, and doctors are nowadays expected to be able to solve all the ills the flesh is heir to. Conference recommended that: (i) research, productivity studies and analyses of the natural course of disease should be extended in order to improve the foundations of medical treatment—such work to be paid for as part of a doctor's normal duties and not regarded as a luxury free-time activity; (ii) therapeutic problematics be included at all levels of medical training; and (iii) that doctors should seek to disseminate increased knowledge of the current problems of medical diagnosis and treatment. Improved diagnosis and treatment will result in improved prognoses for patients—a doctor's highest ambition.

1619. SAUNDERS, C. **Care of the dying.** *Nursing Times*, London, 1976, July 1, vol. 72, no. 26, pp. 1003-1005; July 8, vol. 72, no. 27, pp. 1049-1051; July 15, vol. 72, no. 28, pp. 1089-1091; July 22, vol. 72, no. 29, pp. 1133-1135; July 29, vol. 72, no. 30, pp. 1172-1174; Aug. 5, vol. 72, no. 31, pp. 1203-1205; Aug. 12, vol. 72, no. 32, pp. 1247-1249.

A series of seven papers on the care of the dying. Aspects covered include: the problem of euthanasia; informing the patient of the nature of the illness; control of pain in terminal cancer; mental distress of the dying; nursing patients dying of cancer; and general nursing care of the dying.

1620. SIMPSON, M. A. **Planning for terminal care.** *Lancet*, London, 1976, July 24, vol. ii, pp. 192-193.

In many terminal care settings the behaviour of the medical and nursing staff implies working rules which are insensitive to the patient's needs. More sensitive care is

needed for the dying person who is physically and emotionally isolated in an environment that gives low priority to the individual's own personality and inner experiences. Various recommendations are outlined to enable the dying patient to receive the best possible care. To maintain this standard of care a sense of mutual care and support among the staff is required to allow for efficient co-ordination of the whole programme.

1621. NEW YORK ACADEMY OF MEDICINE. **The professional responsibility for the quality of health care: the 1975 Annual Health Conference, April 24 and 25, 1975.** *Bulletin of the New York Academy of Medicine*, New York, 1976, Jan. vol. 52, no. 1, pp. 1-184.

The 20 papers given at this conference cover four fields: (i) quality of care assessment in the light of the relationship between doctor and patient; (ii) discussion of methods used in hospitals; (iii) health care and the quality of life; and (iv) long-term implications and effects of quality control schemes.

1622. GREENE, R. **Assuring quality in medical care: the state of the art.** Cambridge, Mass., Ballinger, 1976, xv, 294pp. £6.75

This volume results from the work of the Quality Assurance Study Group of Harvard School of Public Health. It explores the current state-of-the-art of assuring quality in medical care with a view towards determining what we can hope to achieve through applying available mechanisms to control quality in medical practice. Following an introductory chapter, the book is in three sections: (i) quality assessment; (ii) the physician; and (iii) the implementation of quality assurance programmes—problems and constraints.

HOME CARE, AFTER-CARE

1623. GERSON, L. W. and BERRY, A. F. E. **Psycho-social effects of home care: results of a randomized controlled trial.** *International Journal of Epidemiology*, London, 1976, June, vol. 5, no. 2, pp. 159-165.

An experimental home care programme was established to serve three acute hospitals in a city of approximately 100,000; previously there was no home care programme and the hospitals had been operating at capacity with lengthy waiting lists. A randomized controlled trial was conducted to evaluate the efficacy of the early transfer of in-patients to home care who received any of five surgical procedures. This showed that there was no statistical difference between groups for any of the procedures with regard to return to work or leisure tasks. The rates of return to household activities were greater for home care patients than they were for controls in the cases of cholecystectomy and procedures for anal and rectal fistula. It is concluded therefore that transfer to home care apparently makes little difference in the rate of return to normal roles and may actually be preferable in terms of function.

SPECIAL DEPARTMENTS

WARDS

See Abstract No. 1541

OPERATING SUITES

1624. GÖTHE, C.-J., OVRUM, P. and HALLEN, B. **Exposure to anesthetic gases and ethanol during work in operating rooms.** *Scandinavian Journal of Work, Environment & Health*, Helsinki, 1976, June, vol. 2, no. 2, pp. 96-106.

As part of a larger study, an investigation was made of the manner in which the exposure of medical staff to anaesthetic gases varies with the anaesthetic technique used and the ventilation standard of the operating theatre. The concentrations of halothane and ethanol were measured during 37 routine operations performed in nine different departments of surgery at six different hospitals. The results showed that anaesthetic technique does influence the exposure of operating staff to anaesthetic gases, but it does not affect exposure to ethanol. In controlled experiments volunteers were exposed to low concentrations of halothane or ethanol; about 60 per cent of both substances was retained. The effective elimination of airborne pollutants calls for good general ventilation in conjunction with local exhaust close to the sources of anaesthetic gas leakage. Since airborne anaesthetics do not occur only in operating theatres, general ventilation has to meet certain requirements also in anaesthesia and recovery rooms.

1625. BENDIX, R. and others. **Computer scheduling for the OR.** *Modern Healthcare*, Chicago, 1976, June, vol. 5, no. 6, pp. 16m-16o.

The 13 operating theatres at Michael Reese Hospital and Medical Center, Chicago, are used by almost 200 surgeons for 10,000 procedures a year. This paper describes the computer scheduling scheme designed to assign the theatres most efficiently. An inherent part of the design of the system was the breakdown by surgical category of the total time devoted to the patient in each operating theatre. These data were necessary in order to assign operating theatre time more efficiently. Steps in the system are: (i) the surgeon contacts the scheduling service in person or by phone; (ii) the time and date agreed are entered into the computer, which revises the bookings for that day and records the same; (iii) on the day of surgery, report forms are provided for the operating theatre staff; (iv) the theatre is used; (v) staff record the start and finish times and enter any data reflecting changes in the procedure; (vi) surgeons submit their suggestions to the surgery management committee; (vii) the system provides periodical reports which analyse operating theatre use, physician activity and theatre time allocation; and (viii) after review by the committee, authorized changes are made in the computer program and/or scheduling parameters.

1626. GOLDSTEIN, B. D. and others. **Atmospheric derivatives of anaesthetic gases as a possible hazard to operating-room personnel.** *Lancet*, London, 1976, July 31, vol. ii, pp. 235-236.

During surgical procedures in which nitrous oxide (N^2O) anaesthesia was administered there was an increased concentration of both nitric oxide (NO) and nitrogen dioxide (NO^2) in the operating theatre air. To evaluate the gases a chemiluminescent monitor was used; however it was not possible to obtain simultaneous recordings of NO and NO^2 as there was only one machine. Preliminary studies suggest that the use of certain devices (e.g. electric cauteries, X-ray machines) capable of releasing energy in the operating theatre produce the oxidation of nitrous oxide. Further evaluation of gas phase reactions of anaesthetic agents within the operating theatre appear warranted, particularly in relation to the occupational risks of operating theatre staff.

PHARMACY

See also Abstract No. 1604

1627. PANASCI, T. **Pharmacy service in a 106-bed hospital.** *Hospital Pharmacy*, Philadelphia, 1976, May, vol. 11, no. 5, pp. 182-184.

The full-time pharmacist at Rose Hospital, Rome, N.Y., points out from personal experience the advantages a small hospital may have by employing a pharmacist. They include: (i) the formulary, through the pharmacy and therapeutics committee, makes available the best type of a particular group of drugs at a saving to the hospital, and the best drug in its class available to the patient, whilst limiting the amount of different drugs the hospital has to hold; (ii) an intravenous additive program which not only reduces the chances of contamination by airborne micro-organisms but also enables the compatability of the additive with the solution to be checked whilst saving nursing time; (iii) the pharmacy controls medication; (iv) a newsletter is provided for the benefit of both physicians and nurses; (v) the pharmacist gives refresher courses in pharmacology to nurses; and (vi) a drug fair is sponsored each year for the information of medical and paramedical staff. A good working relationship with doctors, nurses and other staff in the hospital is most important for the control of medications, and people should learn to rely on the pharmacist.

1628. KRADJAN, W. A. **A pharmacist's experience in a teaching program for patients on anticoagulant medication.** *Hospital Pharmacy*, Philadelphia, 1976, July, vol. 11, no. 7, pp. 257-258, 262-264, 270.

The Veterans Administration Hospital, Seattle, Wash., provides extensive teaching for discharged patients on oral anticoagulants. Patients are seen by a clinical pharmacy faculty staff member, a pharmacy student or a staff pharmacist, the degree of consultation depending upon whether the patient is seen at the bedside or at the window of the out-patient pharmacy. The teaching plan and method of out-patient monitoring are discussed. The pharmacist assesses the case with the physician and reviews the patient's chart. A patient teaching card is compiled from the chart, and the patient teaching scheme is outlined. The pharmacist makes a significant contribution to the education of patients taking anticoagulant drugs. The patients consulted appear to have understood what they have been told.

1629. HOOPER, J. K. **Centralized drug list production in a multihospital system.** *American Journal of Hospital Pharmacy*, Washington, 1976, July, vol. 33, no. 7, pp. 653-658.

The Health Services Administration of the United States Public Health Service oversees two major health service systems operating a total of 60 hospitals and 102 clinics providing care to federal beneficiaries. This paper describes a project established to maintain individualized station drug lists. The structure of the lists and the procedures used in their production are described in detail. Keypunching, data processing and printing are centralized in the Health Services Research Department, Public Health Service Hospital, Baltimore, using CDC 1700 computers. The pharmacist at each station is responsible for drug list maintenance. Each station formulary is stored on digital magnetic tape. Sharing development costs and using a single printing facility is a cost-effective system.

1630. LONGE, R. L. and RILEY, M. W. **Developing drug reports for the pharmacy and therapeutics committee.** *American Journal of Hospital Pharmacy*, Washington, 1976, July, vol. 33, no. 7, pp. 651-652.

The role of a drug information centre in working with a pharmacy and therapeutics committee is discussed. In order to add a drug to the formulary, physicians must complete a special form which asks for justification for the addition. In preparing a report for the committee, the drug information pharmacist evaluates the request as it relates to: (i) the effectiveness of the drug in the stated anticipated uses; and (ii) studies comparing the requested drug with similar drugs already in the formulary. Use of the form allows the pharmacist to focus on the specific claims made by the physician who is requesting the formulary addition.

1631. PIERPAOLI, P. G., COARSE, J. F. and TILTON, R. C. **Antibiotic use control—an institutional model.** *Drug Intelligence & Clinical Pharmacy*, Hamilton, Ill., 1976, May, vol. 10, no. 5, pp. 258-267.

This paper describes the development and implementation of a jointly sponsored pharmacy-therapeutics and infection control committee antibiotic control system. The programme includes a retrospective and prospective utilization review process complemented by a formal education programme and in-house controls on the use of certain antibiotics. The development of a standard protocol and method for the utilization review aspect is presented in the light of a study of 102 patients receiving cephalosporin antibiotics over a 12-month period. The entire programme and data collection components were designed for adaption to any hospital regardless of size or resources. The data base for the review process consists of five broad areas of clinical and laboratory findings that are composed of 29 measurable parameters. Prospective reviews, using clinical pharmacy services augmented by clinical microbiological monitoring systems are discussed.

1632. SCHNELL, B. R. **A study of unit-dose drug distribution in four Canadian hospitals.** *Canadian Journal of Hospital Pharmacy*, Saskatoon, 1976, May/June, vol. 29, no. 3, pp. 85-90.

The Canadian Society of Hospital Pharmacists, with the aid of a National Health Grant, has sponsored a study of the changes that occur when a traditional drug distribution system is replaced by a unit dose system. The study was conducted in four hospitals with 85, 183, 298 and 592 beds respectively [see *Hospital Abstracts*, Vol. 15, Abstract 1019; Vol. 16, Abstracts 263, 1032, 1033]. This paper describes the five sub-studies carried out: staff use (pharmacists and nurses), cost, medication errors and staff attitudes. The conclusions reached in each study are given and the resulting recommendations are given under the following headings: (i) those to improve traditional drug distribution; (ii) those on the implementation of unit dose systems; (iii) those to encourage the adoption of unit dose in Canada; (iv) those on educational programmes for health professionals; and (v) those for further studies.

LABORATORIES

1633. GREEN, A. E., HYDE, R. D. and SMITH, D. **Regional quality control.** *Journal of Clinical Pathology*, London, 1976, Aug., vol. 29, no. 8, pp. 724-726.

Haematologists in the Wessex Region have co-operated in the development of a

regional system of quality control. An account is given of the procedures in blood counting, assay of vitamin B^{12} and folate, and in blood grouping and antibody detection. The system uses existing facilities for preparation and transport of the necessary materials.

1634. RAPPOPORT, A. E., GENNARO, W. D. and BERQUIST, R. E. **An on-line centralized computer-coupled automated laboratory information system using touch-tone card dialer telephone and audio-response technology for test order entry and result retrieval.** In: AFIPS Conference Proceedings, vol. 44, 1975 National Computer Conference, pp. 757-763. Montvale, N.J., AFIPS Press, 1975.

Successful laboratory participation in efficient out-patient treatment depends on the ability to perform rapidly a wide range of tests with maximum reliability, accuracy and precision and to transmit this information to the doctor to allow treatment of the patient without delay. The Youngstown (Ohio) Hospital Association (YHA) Laboratory Information System (LIS) has been developed to suggest many solutions to out-patient problems. The LIS consists of six major sub-systems: (i) centralization (specimen collection and transport); (ii) examination (test performance); (iii) documentation (computerization); (iv) communication (DIVOTS and terminals); (v) retention (data storage and retrieval); and (vi) administration (staffing, cost control, records, etc.). The sub-systems are described. The system is rapid, error-free, and permits identification of patients and samples, automatic testing and prompt transmission of the information. Further studies are being carried out to determine the cost-effectiveness, systematic advantages and the technical requirements of the system with a view to expanding it into a broader medical information system.

1635. **Pathology department: pathology reports—copying and storage of reports.** (Abstracts of Efficiency Studies in the National Health Service, No. 172) London, Her Majesty's Stationery Office, 1976, [2]pp. £0.11

During the course of a study in the area pathology department, Queen Elizabeth Hospital, Gateshead, it was found that 97 per cent of all reports were being photocopied and a copy filed; the remaining three per cent were typed and a copy filed. Copies were retained for over five years, taking up considerable space and making retrieval difficult. Analysis over a representative period showed that any recall of reports was usually within three months and was mainly initiated by wards/departments for reports that had been mislaid. The new procedure introduced uses no carbon required request/report forms which automatically generate their own file copies for 97 per cent of reports; these are not retained for more than three months. The remaining three per cent (tuberculin sensitivity tests and surgical and post-mortem examinations) are typed and photocopied; the copies are retained for longer periods. The copies are colour-coded to indicate the kind of test involved. The changes, in addition to reducing storage space, have saved approximately 24 hours of clerical staff time per week, reducing costs by £870 per year.

1636. COLES, E. C. and SLAVIN, G. **An evaluation of automatic coding of surgical pathology reports.** *Journal of Clinical Pathology*, London, 1976, July, vol. 29, no. 7, pp. 621-625.

The use of the *Systematised Nomenclature of Pathology* as the basis of an indexing system to histopathological data is outlined. A comparison is made between Pratt's

computer system of automatic encoding of histopathology phrases and experience at Northwick Park Hospital with a simpler pilot system based on the ICL 1900 series computers which are used by most regional health authorities in the United Kingdom. It is concluded that a simple system has a great deal to offer the pathologist who is prepared to accept a set of constraints.

1637. SMITH, D. **Quality control should be hospital-wide.** *Dimensions in Health Service*, Toronto, 1976, July, vol. 53, no. 7, pp. 37-39.

The need for quality control in hospitals is discussed. At present the public believe that the wrong diagnosis or treatment is due to incorrect laboratory results, however it is the very use of such quality control schemes within the laboratory that reveals the faults. Current laboratory practice is outlined with the use of internal and external quality control schemes. Other hospital departments suitable for quality control schemes are considered. The various methods of testing are discussed. The value of quality control checks on the hospital end-product is considered. An externally applied quality control scheme on diagnosis and treatment would force an improvement in the internal quality control methods. The laboratory has paved the way for the hospital in its approach to quality control, and it is now up to the hospital boards and the public to recognize that quality control in laboratories is working well and to focus attention on other areas of the hospital where little or no effort is being made.

BLOOD TRANSFUSION DEPARTMENT

See also Abstract No. 1633

1638. CUMMING, P. D. and others. **A collections planning model for regional blood suppliers: description and validation.** *Management Science*, Providence, R.I., 1976, May, vol. 22, no. 9, pp. 962-971.

A planning model has been developed to assist regional blood suppliers in alleviating seasonal imbalances between supply and demand. A Markovian population model is used to project various performance measures for a blood supply region. These measures are summarized in graphs covering a planning period of several months to one year. The planner improves projected performance by changing collection plans and using the planning model iteratively to evaluate each plan. The data required by the model are generally available—past performance of blood mobile sponsors, quotas, and demand forecast. In this paper the model is described, projected performance measures are validated against actual measures, sensitivity to errors in inputs is analysed, and the model is evaluated relative to less complex models. The planning model is shown to be sufficiently accurate for its purpose and highly effective for its cost. It has been implemented by two regional blood suppliers using remote computer terminals.

DIAGNOSTIC X-RAY DEPARTMENT

1639. BARKER, E. G. and others. **Film screening by physician assistants in diagnostic radiology.** *American Journal of Roentgenology*, Springfield, Ill., 1976 May, vol. 126, no. 5, pp. 1069-1076.

Over the past few years the University of Kentucky Medical Center has developed a successful training programme for physician assistants in diagnostic radiology. The

major objective has been to train specially selected radiologic technologists to perform a number of duties beyond their usual scope. A major aspect of their instruction centres on how to screen a wide variety of routine radiographs to determine whether they are positive or negative for significant pathology. The training scheme and the method used to evaluate the performance of the assistants are described. The methods used in the training programme, stressing perceptual recognition of normal and abnormal findings, may be beneficial in the early months of training of diagnostic radiology residents to hasten achievement of an acceptable performance. Test films, used in this study as an evaluation technique, may also be useful to assess residents' progress.

1640. IRWIN, G. A. L. and TILLITT, R. **A computer assisted radiological reporting system.** *Radiology*, Easton, Pa., 1976, Feb., vol. 118, no. 2, pp. 329-331.

A commercially available computerized diagnostic reporting system has been installed in the radiology department of a large 700-bed municipal hospital. Studies prior to installation revealed 95,000 X-ray examinations were performed annually, and 40 per cent of the in-patient radiograph reports were dictated and typed on the same day that the radiograph was received. Following installation of the Raport system turnover of reports has not changed, but dictation time has been reduced by 40 per cent. The system has produced greater awareness of efficiency, since dictation is needed for only 13 per cent of casualty cases and 23 per cent of in-patient cases, and consequently there are savings in overtime. The system can also be adapted to other computerized systems in the X-ray department.

DEPARTMENTS FOR SPECIAL THERAPY

1641. SACHDEV, Y. and others. **Programmed investigation unit.** *British Medical Journal*, London, 1976, July 10, vol. ii, pp. 91-93.

The programmed investigation unit (PIU) is an in-patient unit where a full range of investigational medicine can be organized; it provides the basic minimum nursing care and is suitable for ambulant patients who can care for themselves. The PIU at the Royal Victoria Infirmary, Newcastle upon Tyne, has five beds for female medical patients only and operates from Monday to Friday. Requests for admission come directly from clinical units, and the staff of these units perform some of the tests and remain responsible for the patient while she is in the unit. The average waiting time for admission is three weeks. Because the unit now deals with most investigations the waiting time for admission to the female general medical wards has fallen considerably. The staffing pattern and responsibilities, working pattern and admission procedure, programming procedure, ward routine and discharge procedure are described.

1642. NOVIKS, L., KING, B. and SPAULDING, W. B. **The diabetic day-care unit. I. Development of an index to evaluate diabetes control.** *Canadian Medical Association Journal*, Ottawa, 1976, May 8, vol. 114, no. 9, pp. 777-779.

In order to measure the effect of the diabetic day care unit, McMaster University Medical Centre, [see *Hospital Abstracts*, Vol. 15, Abstract 138] on diabetes control, two scoring scales were constructed, one for insulin-dependent diabetics and the other

for patients managed by diet or oral agents or both. Both scales were based on observations of blood and urine glucose concentrations, ketonuria, symptoms of diabetes and deviation from ideal weight. The scale for insulin-dependent diabetics also included the frequency and severity of insulin reactions and frequency of hospital admission for acidosis. Scores for 45 insulin-dependent patients and for 55 diabetics treated by diet with or without oral agents indicated significant improvement on diabetes control in both groups.

1643. SPAULDING, R. H. and SPAULDING, W. B. **The diabetic day-care unit. II. Comparison of patients and costs of initiating insulin therapy in the unit and a hospital.** *Canadian Medical Association Journal*, Ottawa, 1976, May 8, vol. 114, no. 9, pp. 780-783.

Fifteen patients began insulin treatment in the diabetic day care unit at McMaster University Medical Centre [see *Hospital Abstracts*, Vol. 15, Abstract 138] and 14 in the hospital. The cost per patient of initiating insulin treatment in hospital was nine times the cost in a day care programme. In general, the disease of patients with juvenile-onset was initially under poorer control in those admitted to hospital than those in the day care programme. However, the day care juvenile with disease under poorest control was comparable to the most severely affected patient admitted to hospital. No major differences in the improvements in control achieved by the two programmes were found.

1644. PAVITT, L. **Paediatric dialysis.** *Nursing Times*, London, 1976, June 17, vol. 72, no. 24, pp. 936-938.

The Royal Free Hospital, London, has, since 1964, made it possible for patients requiring dialysis to have it at home. Since 1969 22 children have been accepted for haemodialysis. Management problems are discussed under three heads: (i) blood vessel size and blood access; (ii) the relationship of weight and blood volume; and (iii) diet and growth. The advantages of home dialysis together with the equipment required are outlined. The addition of peritoneal dialysis has prevented long periods in hospital as training can be completed in one week, and nine of the children have been treated at home. The technical difficulties of dialysis have been overcome but the lack of growth and development of the children still remains a major feature of their treatment.

INTENSIVE CARE UNITS

1645. SHIRCORE, R. **Stress and intensive care staff.** *Health and Social Service Journal*, London, 1976, Aug. 14, vol. 86, no. 4503, pp. 1476-1477.

The pressures of work in an intensive care unit (ICU) on staff are: (i) lack of communication with patients, detracting from job satisfaction; (ii) strict adherence to routine and a stable environment; (iii) the condition of the patient and the demands of technology require absolute precision in measurement and therapy; and (iv) the high mortality rate. However it is a fallacy that the ICU is an independent unit as it has to take responsibility for all patients that no other ward will consider. ICU staff do not have the freedom to say what is best for the patient and refer him to a more specialized

unit as may happen in other units, and consequently they develop defensive attitudes. To improve the situation much could be done regarding staff working arrangements by: (i) better use of resources through improved knowledge of the capabilities of individual wards and units within the hospital; (ii) the ICU staff should realise the part they play in patient care and their relationship with the rest of the hospital; and (iii) problems experienced by ICU staff may be important indicators of the efficiency of the remainder of the health care system. Unless the 'social' role of the ICU is resolved then the psychological stress of the ICU staff cannot be diminished.

1646. COBB, L. A., ALVAREZ, H. and KOPASS, M. K. **A rapid response system for out-of-hospital cardiac emergencies.** *Medical Clinics of North America*, Philadelphia, 1976, March, vol. 60, no. 2, pp. 283-290.

A review of five years' experience with an out-of-hospital emergency care system in Seattle, Wash., is outlined. The community served is a city with a population of more than 500,000 in an area of 90 square miles. The system, Medic I, is discussed. The system is stratified and provides for rapid primary response, and if necessary, secondary response by trained paramedical staff. Although the system is used frequently for sudden cardiac failure it is broadly based and is used for all medical emergencies. The major functions of the system are: (i) rapid response; (ii) rescusitation from circulatory arrest; (iii) early treatment of acute myocardial infarction and trauma; (iv) direct admission to a coronary care unit; (v) education of the public; and (vi) improvement of other emergency medical services. Training schemes for the paramedical staff and the public are outlined. The system is evaluated together with the legal implications.

1647. DEAN, J. **Patients' reactions to a coronary care unit.** *Nursing Mirror*, Sutton, Surrey, 1976, July 29, vol. 143, no. 5, pp. 65-66.

Intensive care units, together with coronary care units (CCUs) are a relatively new factor in patient care. The growth of specialization in medicine has led to the development of small units in which a patient can be observed and cared for whilst in the acute stages of illness before moving to the general ward. A study of 15 patients admitted to the National Heart Hospital CCU was carried out to evaluate their reactions to the unit. The conclusions drawn are that sympathy, understanding and explanation help the patient, but nothing should be taken for granted since the patient needs all the nursing and psychological aid possible.

1648. GEERTSEN, H. R., FORD, M. and CASTLE, C. H. **The subjective aspects of coronary care.** *Nursing Research*, New York, 1976, May/June, vol. 25, no. 3, pp. 211-215.

Opinions on selected aspects of coronary care were collected through questionnaires given to patients on release from coronary care units in 11 hospitals. The results indicated that overall satisfaction was high, although there were significant variations within the various units examined. The findings suggest the need for greater attention to the non-technical aspects of care, especially reduction of emotional trauma and improved interpersonal relations. The practical implications of these findings for the nursing profession as well as for coronary care are discussed.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 1588, 1617, 1634, 1669

1649. COWEN, J. B. and others. **Student involvement in health care: the patient's perspective.** *Hospital Medical Staff*, Chicago, 1976, June, vol. 5, no. 6, pp. 21-26.

The Rochford School of Medicine, a clinical school of the University of Illinois College of Medicine, was organized to: (i) provide medical education outside the Chicago area, thereby attempting to retain physicians within the state, especially in rural areas affected by physician maldistribution; and (ii) establish a community medical school using local medical facilities and community physicians as instructors resulting in major savings in capital expense and helping to create an identity with the community. The Community Health Center Program was established to provide education in ambulatory medicine and to deliver services to areas of need. Three health centres have been opened, using a fee-for-service system. The centres are primarily for the educational training of the medical students of the Rochford School of Medicine. Students spend two half-days a week for three years providing medical care under supervision. The system was evaluated through the reaction of patients. Results indicated that patients were generally in favour of having students participate in their care: only 15 per cent did not want to see a student. The scheme appears to be a success, the quality of medical care was not sacrificed by combining medical education with medical care.

1650. MACSTRAVIC, R. E. **Hospital-based ambulatory care—the wave of the future?** *Hospital & Health Services Administration*, Chicago, 1976, vol. 21, no. 1, pp. 60-66.

The emphasis in hospitals has been on in-patient care, with out-patient care regarded as a necessary evil and emergency services provided at a loss. In the last five or 10 years however, this tradition has been changing and more and more hospitals are developing primary care schemes. Two separate types of primary care programmes have evolved: on-site centres and satellite centres. Some of these developments are reviewed briefly and discussed. If any conclusion can be drawn, it may be that: (i) hospital primary care programmes are going to become more and more common; (ii) such programmes offer significant potential benefits to both hospital and community; and (iii) in addition to these benefits, there are also potential problems relative to the institution itself, the community served, and the entire health system.

1651. BYRNE, R. J. **Mobile health unit: valuable means of outreach.** *Hospital Progress*, St. Louis, 1976, May, vol. 57, no. 5, pp. 86-88, 91-92, 94, 96.

St Mary's Health Center, St. Louis, has been providing, for the past seven years, primary care to low-income neighbourhoods via a mobile health unit. Having begun as a caravan providing exclusively prenatal care, the unit is now a custom-built van providing care to women and children who are unable either to afford or reach other facilities and to the elderly. The custom-built van in addition to examination rooms,

contains dressing rooms, self-contained washrooms, interview counselling compartments and movable partitions that convert the unit into a minitheatre for medical education films and slides. During the period 1969 to 1975, the unit provided services to more than 1,000 patients, 700 of them obstetrical and gynaecological. The costs of operating the unit are not easily calculated as so much manpower and so many supplies are contributed by the various groups that co-sponsor the unit's visits. Nevertheless it is estimated that a yearly $3,000 for supplies provided by St. Mary's plus an additional $7,000 for other costs of operation, including fuel, insurance, maintenance and repairs for the van are necessary to run the service. As the mobile health unit becomes a full-time project, pay roll costs plus increased costs of added operations are projected at $50,000 annually.

1652. MORK, T. Prinsipielle helsepolitiske målsettinger med sykehuspoliklinikker som ledd i den totale helsetjeneste. **[Principal health policy objectives with hospital polyclinics as part of the whole health service.]** *Norsk Sykehustidende*, Oslo, 1976, June/July, vol. 49, no. 6/7, pp. 117-120.

Polyclinic activity is defined as all examination, treatment and inspection of patients not in the hospital concerned; it includes analysis of samples, etc. It does not cover 'ambulatory activities', i.e. visits by staff to homes or other institutions. The statistics are rather uncertain, but it appears that there were 3.3 consultations per citizen in 1974, of which 0.7 were with specialists; the majority of these are assumed to have been hospital polyclinic consultations. The Norwegian Government is planning for expansion of the polyclinic services to 1.25 specialist consultations a head per year, involving a transfer of a significant proportion of diagnostic and therapeutic activities from the wards to the out-patient departments. The Government's plans, passed by Parliament, involve the following seven points: (i) polyclinic activities must be organized by the hospital; (ii) the service should comprise all specialties in the hospital; (iii) the same staff should be responsible for out-patients as for in-patients; (iv) the work of the polyclinic must be part of the staff's normal duties; (v) patients must be referred to the polyclinic by the district health service, except in emergencies; (vi) the hours of opening must be in accordance with the best interests of the general public; and (vii) all hospital polyclinics should be extended by the addition of 'day rooms' where patients may stay under observation before returning home. Individual counties must decide whether their specialist services are best provided in hospital out-patient departments, by means of an ambulatory specialist service, or via specialists in private practice. It will be regarded as part of a doctor's duties to act in these clinics without extra payment.

1653. MCDONALD, C., BHARGAVA, B. and JERIS, D. **A clinical information system [CIS] for ambulatory care.** In: AFIPS Conference Proceedings, vol. 44, 1975 National Computer Conference, pp. 749-756. Montvale, N.J., AFIPS Press, 1975.

An evolving ambulatory care information system (CIS) which has been in use at the Regensbrief Institute, Indianapolis, Ind., is described. The features of the system include; (i) implementation in a high level interpretative language on a minicomputer; (ii) paper-based (optically-read turn-around documents) rather than electronic terminal input/output; (iii) automated clinical surveillance (the computer works for the physician by searching out errors and dangerous conditions); and (iv) data base management orientation to cope with the constant companion of change. The CIS is designed to

deal with a 200,000 active patient population at the administrative-ancillary service level and a 40,000 patient subset of that population at clinical level. The use of the system for clinical reports and the language, operational experience, data base management system, modules, hardware and software are outlined. The system serves all levels of care and is actively involved in executive decisions. Further developments of the system are considered.

1654. SHAW, D. R. PHILLIPS, S. K. and DANIEL, W. A. **Clinic self-evaluation.** *Industrial Engineering*, Norcross, Ga., 1976, June, vol. 8, no. 6, pp. 18-24.

This paper describes a self-evaluation study in the out-patient department at Children's Hospital, Birmingham, Ala., which aimed to improve efficiency while maintaining a high quality of health care. An initial study was conducted using the clinic self-evaluation manual. This paper describes a follow-up evaluation conducted one year later to determine if significant improvements had been achieved. Analysis of patient flow showed that more patients were seen in less time during re-evaluation than during the initial evaluation. Work sampling studies showed improved use of medical, nursing and clerical staff. Availability of information also improved during the re-evaluation period. There was a 13.9 per cent increase in the department's effectiveness as measured by the effectivity matrix. Numerical productivity remained unchanged. The cost per patient remained unchanged, but as health care costs increased significantly between the two periods this indicated increased effectiveness.

CASUALTY AND ACCIDENT

See also Abstract Nos. 1557, 1646

1655. JENKINS, A. L., editor. **Emergency department organization and management.** St. Louis, Mosby; London, Kimpton, 1975, xi, 257pp. £7.25

This book, published under the editorial guidance of the Hospital Committee of the American College of Emergency Physicians, has been prepared to meet the need for a guidebook for emergency physicians, hospital administrators, medical staffs and others interested in the organization and management of an emergency department. The 14 papers cover design, staffing, policies and procedures, records and forms, intra-hospital relationships, community resources and involvement, disaster planning, transport and communication efficiency and legal and financial aspects.

1656. MACKENZIE, J. R. and others. **A guideline for the organization of an emergency department in the university setting.** *Journal of the American College of Emergency Physicians*, East Lansing, Mich., 1976, May, vol. 5, no. 5, pp. 364-376.

The emergency department in a university hospital has the specialized facilities necessary for regionalized emergency medical care—one of the major components of a total health care system. This guideline for the organization of such a department: (i) identifies the operational goals; (ii) defines the operational objectives of the department pertaining to patient care, education and research; and (iii) develops an organization of staff, space, equipment and facilities that will allow the operational objectives to be met. Plans of two possible designs for emergency departments are included.

1657. McDONALD, J. **An emergency room that gives better care to more people.** *Modern Healthcare*, Chicago, 1976, June, vol. 5, no. 6, pp. 33-36.

At a time when hospital emergency departments in the United States are facing increasing problems, a few departments stand out as being exceptional. One of these is that at University Hospital, Jacksonville, Fla., which recently became the centre of the North-east Florida Eight County Emergency Medical Care Project. Features of the department include: separation of urgent and non-urgent patients, with separate entrances; communications centre, which enables preparations to be made for critical patients before they arrive; adjacent resuscitation, intensive care, intermediate care and minor surgery units; triage of non-urgent patients by a nurse or senior emergency medical technician; close liaison with the out-patient department; tripartite leadership—nursing, medical and administrative; staff training schemes; and regular review of policies and procedures.

1658. CETTOUR-BARON, G. Les services d'aide médicale urgente. **[Emergency services.]** *Techniques Hospitalières*, Paris, 1976, June/July, vol. 31, nos. 369/370, pp. 44-53.

In the first of three papers on emergency services in France the author describes the sometimes conflicting attitudes and policies of the Ministry of Health and the National Service for Civil Defence and quotes the relevant laws, decrees, and circulars. He then outlines the present emergency services, in particular as they relate to road accidents. The police should always be notified first, and it is then their duty to alert the ambulance services, the fire brigade, and the hospital.

1659. JOYNER, H. S. **Emergency room forecasting.** *Industrial Engineering*, Norcross, Ga., 1976, July, vol. 8, no. 7, pp. 36-43.

Normal hospital admissions can generally be scheduled to make the most efficient use of staff and facilities thus reducing costs, but emergency room attendances cannot be scheduled. Emergency room attendances at a 720-bed hospital located in a metropolitan area with a population of 300,000 were analysed to show the average number of visits per day/per week as a function of time for a five-year period and the number of admissions through the emergency room. The results are used to forecast the number of attendances for the next 50 weeks. A detailed study was made to determine the type of disorders, age, sex, duration of visit, etc. of patients over a 35-week period. The results are presented in a series of graphs and discussed.

DAY HOSPITALS

See Abstract Nos. 1535, 1642, 1643, 1665, 1666

CHILDREN

See also Abstract Nos. 1535, 1606, 1644, 1654

1660. SAIL, T. and SAIL, L. **Children in hospital.** Gloucester, Thornhill Press, 1976, 30pp. £0.40

The object of this booklet is to provide a concise general guide which will be of use

both to parents whose children may have to go into hospital, and to hospital staff faced with the many questions which parents inevitably have. It is written from first-hand experience by parents of two children both of whom have been in hospital—one very briefly, the other more frequently.

1661. ADAMS, M. A. **A hospital play program: helping children with serious illness.** *American Journal of Orthopsychiatry*, Albany, N.Y., 1976, July, vol. 46, no. 3, pp. 416-424.

The in-patient unit of Memorial Sloan-Kettering Cancer Center, New York, has 42 patients aged between 0 to 21 years. A play-therapy scheme has been developed to help children express their feelings and to increase co-operation within the unit. The scheme is outlined. The results of the play-therapy groups indicate that the scheme teaches the child aspects of his own medical treatment, and helps maintain adequate patterns of coping with the situation. The child is more able to express feelings about his illness and about his eventual death. The experience provided by the group is essential to the emotional development and adjustment of young patients with serious illness.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1534, 1536

1662. METSCH, J. M. **Long-term care programme management—an intersystem approach.** *Journal of Long-Term Care Administration*, Washington, D.C., 1976, vol. 4, no. 1, pp. 20-26.

This paper reports on the manner in which a specific subset of systems concepts, the intersystem model and programme management, are applicable to the planning and management of a comprehensive health care programme in a long-stay hospital. Development of a grid (an example is reproduced) to identify areas where the administrator must develop co-ordinative mechanisms between autonomous systems with impact on programme success is the first step of an intersystem approach upon which substantive action plans can be based. Development of the matrix reveals functional areas that should be represented on the planning committee and the type of information that should be collected regularly to monitor effectiveness of the overall programme. Matrix development should also be an on-going process which includes periodic evaluation of groups and functional areas to be involved in intersystem management and activities to be dealt with collaboratively. Modifications and adjustments should be made to reflect experience, new inputs, and the changing capabilities of the staff.

1663. WOOLDRIDGE, D. B. **The geriatric institution as a therapeutic modality.** *Canadian Medical Association Journal*, Ottawa, 1976, July 3, vol. 115, no. 1, pp. 27-29.

Geriatric centres complete with day hospital facilities are essential for good care of the elderly. Institutions for the sick elderly should be upgraded to provide the full range of services required. Facilities should be available to help diagnose simple medical conditions and there should be methods for easy transfer of the resident to the acute care hospital. The resident could be moved from minimal support in lodge-style

accommodation to continual nursing in a hospital setting. New diseases develop in the elderly that are often difficult to diagnose, and consequently a far greater range of diagnostic and therapeutic services is required than is considered adequate in most centres providing long-stay care.

1664. BIÖRCK, G. Akutsjukvården—de äldres viktigaste resurs. **[Acute care—the most important resource for old people.]** *Landstingens Tidskrift*, Stockholm, 1976, July, vol. 63, no. 9, pp. 58-62.

There is little shortage of doctors or money for the out-patient services, long-stay care and mental care, but a shortage of both staff and funds for acute somatic care. Patients have, however, not yet got used to the idea of being ill during office hours only, or else applying to the long-stay institutions, but prefer going to hospital. Eighty per cent or more of all medical ward admissions are patients referred from casualty, most of them advanced in years, and the acute wards operate with a loading of nearly 100 per cent. Swedish society has in recent decades become a four-generation population, whilst the term 'family' no longer applies to a large group of relations but to a young couple with one or two small children. The longer old people are kept in over-filled acute wards, the greater the risk of relapse, aggravation, need for admission to a long-stay unit, or death. Half of all deaths in Stockholm occur on the acute wards—far more than in the long-stay units. Old people and their relatives, and the referring clinics, regard the acute care wards as their most important therapeutic resource, and it is high time the upper echelons of the health service realized this fact. Blood pressure testing ought also to be introduced on a far wider scale. The paper is illustrated with two diagrams to show the distribution by age of the Swedish population, and the results of an investigation into the fate of acute ward patients.

1665. ELBURG, H. W. van., LEENSMA-REHORST, L. and KOK, K. Dagbehandeling in een verpleeghuis. **[Day care in a nursing home.]** *Ziekenhuis*, Utrecht, 1976, Aug. 4, Vol. 6, no. 15, pp. 386-390.

Between May 1970 and 1 January 1976, Janskliniek, Haarlem, has treated 596 day patients, 65 per cent being out-patients and 82 per cent over 65. Two buses, adapted for wheel-chairs, are used for transport along routes planned for minimal length of journey. Physiotherapy is given individually and in groups. Ergotherapy concentrates on functional training for daily living. A three-weekly medical check-up is given, involving patients' relatives. Regular discussions on patients include general practitioners and home services. If requested, laboratory tests and X-rays are carried out. Attached to the day care service are a dietitian, social worker and speech therapist. Nurses carry out dressings, injections, etc. Most patients receive occupational therapy and group activities stimulate social contract and combat loneliness. From 1970/71 to 1975 the average period of day treatment increased from 18 to 42 weeks. Four tables are given with percentage figures on patients' age, sex, status, doctors, admissions, discharges, conditions and preventive results.

1666. DOHERTY, N. J. G. and HICKS, B. C. **The use of cost-effectiveness analysis in geriatric day care.** *Gerontologist*, St. Louis, 1975, Oct., vol. 15, no. 5, pp. 412-417.

Cost-effectiveness is potentially useful for the evaluation of day care and other geriatric schemes since the outcomes usually considered are on the whole non-economic.

The methodology of cost-effectiveness analysis involves constructing programme objectives, outcome and cost models together with decision making criteria. The approach outlined is at a conceptual level but addresses the need for standardization of methods and generalization of findings, and provides a rationale for evaluating the cost of day care as a component of the social cost of supporting the elderly. There is a need in cost-effective analysis for: (i) a uniform definition of cost and the use of appropriate cost models; (ii) agreement on cost accounting procedures; (iii) a set group of output and outcome measures; (iv) the use of similar time intervals for gathering outcome data; and (v) recognition of the role of services and patient days as final outputs of a service system, and as intermediate outputs in the production of client welfare.

CANCER

See also Abstract No. 1610

1667. JOHNSON, I. C., BLUMENSON, L. E. and BROSS, I. D. J. **A computerized tumor-registry system for persons who do not love computers.** *Journal of Surgical Oncology*, New York, 1975, vol. 7, no. 5, pp. 375-380.

A simplified system for updating a cancer registry has been developed in the biostatistics department of Roswell Park Memorial Institute, Buffalo, N.Y. The system was designed to serve the needs of maintaining a registry for a co-operative cancer research group. The system is simple and does not require a programmer to update the registry. Any member of the staff can update by following written instructions and pushing buttons at the remote terminal with the use of a magnetic card which contains the commands for the computer to retrieve the various elements to carry out the updating. The procedures involved in the Data Update Procedure at a Remote Terminal (DUPART) are flexible and can be applied with slight modification to other registries.

CARDIOLOGY

See Abstract Nos. 1646-1648

RHEUMATISM

See Abstract No. 1669

UROLOGY

See Abstract No. 1644

SURGERY

See also Abstract No. 1602

1668. KWAK, N. K., KUZDRALL, P. J. and SCHMITZ, H. H. **The GPSS simulation of scheduling policies for surgical patients.** *Management Science*, Providence, R.I., 1976, May, vol. 22, no. 9, pp. 982-989.

The purpose of this study is to determine and evaluate utilization levels of the

operating theatre and recovery room facilities under different policy considerations governing patient flows. The utilization rates are examined under constraints that apply to the particular hospital from which the empirical data was obtained; however, the model and approach were designed with general applications in mind. The range of values for critical timing measurements is obtained from a model using the Monte Carlo simulation technique. The model is programmed in GPSS and was run on an IBM 360/165. An optimal policy that satisfies the 'real world' constraints of an active hospital is sought. The output from the model is interpreted. It is revealed that increases in facility use can be made while meeting the constraints dictated by normal hospital routine, thus offering the possibility of reducing costs.

1669. CALNAN, J. **One-day surgery for rheumatoid arthritis.** *Nursing Mirror*, Sutton, Surrey, 1976, July 29, vol. 143, no. 5, pp. 51-53.

Hammersmith Hospital established a minor surgery unit in 1967. Theatre sessions are allocated to doctors according to their work load. All general anaesthetics are given in the morning, the patient having fasted overnight. Only four part-time nurses run the unit and look after the 60 doctors who, at one time or another, work there. The capital costs of converting a hut to a self-contained unit were, in 1966, £13,600. The admission procedure for patients is outlined. The advantages of the system are: (i) there is no need to complete a waiting list card; (ii) there are no letters to dictate to a secretary; (iii) the quality of service improves the whole time and all know what is expected; (iv) there is a saving of time by having a fixed routine of accurate planning of treatment and some financial savings; (v) economy in management is maintained; and (vi) it is felt that surgeons work faster and more competently under better conditions. The disadvantage of the system is that more time has to be spent with each patient at the first consultation. Hand operations account for 60 per cent of the cases seen annually and half of these are for patients with rhematoid arthritis. The future of the service for rheumatoid arthritis continues to expand; other procedures are now being considered, such as operations on the toes. The experience of the unit shows that it may offer a better service to suitable patients, and standards of care may even be higher than usual.

OPHTHALMOLOGY

1670. CLARKE, J. A. **A brief survey of the care of patients with ophthalmological conditions.** *Health Bulletin*, Edinburgh, 1976, July, vol. 34, no. 4, pp. 230-236.

This paper examines items of interest from an analysis of published data on ophthalmological care in Scotland. Four aspects are examined: hospital care, school health services, assistance for blind or partially sighted, and the general ophthalmic services. Ophthalmology has a greater proportion of out-patient care than any other surgical specialty; on average out-patient attendances are some 20 times more frequent than in-patient episodes. There is however a considerable variation in this ratio between the regions. The lack of published out-patient data is a problem in all specialties, but particularly in those such as ophthalmology with a high out-patient load.

DENTISTRY

1671. WILSON, N. H. F. **A survey of the dental needs of hospital inpatients in Scotland.** *Community Dentistry and Oral Epidemiology*, Copenhagen, 1976, July, vol. 4, no. 4, pp. 129-132.

Comprehensive patient care in hospitals should include dental services necessary to ensure that all in-patients are free of dental pain and infection and that all long-stay patients maintain a functional occlusion and an acceptable standard of oral hygiene. A survey was made of a heterogenous groups of 894 patients in four hospitals in Edinburgh to assess their dental needs. The data were used to assess future in-patients' dental needs and the hospital dental services which would be necessary to meet them. Seventeen per cent of the sample was found to be suffering from pain or discomfort of dental origin and over 30 per cent were considered to require some form of dental treatment before their expected date of discharge.

1672. WILSON, N. H. F. **A survey of the need for emergency dental services.** *Public Health*, London, 1976, July, vol. 90, no. 5, pp. 231-233.

A survey was made of the dental emergencies treated in the casualty departments of the Royal Infirmary and the Royal Hospital for Sick Children, Edinburgh during the last three months of 1974. It was found that the need and demand for such treatment is greatest at week-ends and on public holidays. It is believed that emergency dental services could be advantageously affiliated to well-known hospital casualty centres in densely populated areas. Dental staff could initially meet the demand by being 'on call'. However, once a service has been established, it may prove necessary or simpler to run regular sessions at set times. Recruitment of the few staff needed should not be difficult. Costs should be met by patients who could be expected to pay the full appropriate National Health Service charge unless they belong to one of the recognized priority groups, who are exempt from charges.

PSYCHIATRY

See also Abstract Nos. 1534, 1559, 1577

1673. TENNENT, G. and others. **Female patients in the three English special hospitals: a demographic survey of admissions 1961-65.** *Medicine, Science and the Law*, Bristol, 1976, July, vol. 16, no. 3, pp. 200-207.

A study of patients who had their first admissions to the three English 'special' hospitals, Broadmoor, Rampton and Moss Side, suggests that there are very real differences in background factors between the female patients who are sent to Broadmoor and those sent to the other special hospitals. An attempt is made to construct a stereotype of the typical patient admitted to each of the hospitals.

1674. MORGAN, R. **Patients have been let out of wards; why not nurses too?** *British Journal of Psychiatry*, London, 1976, July, vol. 129, pp. 82-85.

Tradition retains the practice of attaching psychiatric nurses to wards rather than to groups of patients, even though the wards are increasingly empty since patients are

now in workshops and lead more active lives during working hours. A scheme at St. Wulstan's Hospital, Malvern, enables nurses to relate more fully to their patients instead of confining their activities to the place in which only part of the care is provided. All ward nurses leave their wards empty in 'working hours' and are relieved of the care of their ill patients, taking in exchange the complete day care of their more fit patients in wards and workshops. Nurses work three day shifts, from 0700 to 1430, 1330 to 2100, or 0830 to 1720. Each nurse rotates through the three shifts, which theoretically provide twice as many nurses on duty in workshop hours as there are on duty outside workshop hours. Special arrangements are provided for those patients who are too ill to remain in circulation. The advantages of these changes are outlined; communications between staff and patients have greatly improved.

1675. SINGH, C. **Psychiatric bed needs in Ontario.** *Dimensions in Health Service*, Toronto, 1976, July, vol. 53, no. 7, pp. 33-34.

An assessment is carried out of the number of psychiatric beds that are required in Ontario to meet adequately the needs of different levels of in-patient psychiatric care. The province currently uses a formula of 1.1 in-patient psychiatric beds per 1,000 population. A patient profile survey was conducted of every patient in Ontario psychiatric hospitals in 1975; the results indicated that a large percentage of the in-patient population could be moved to less specialized and less costly institutional settings. Bed use in psychiatric hospitals, general hospitals, short-stay and long-stay hospitals throughout the province is evaluated.

1676. WILLIAMS, T. A., JOHNSON, J. H. and BLISS, E. L. **A computer-assisted psychiatric assessment unit.** *American Journal of Psychiatry*, Hanover, N.H., 1975, Oct., vol. 132, no. 10, pp. 1074-1076.

The Veterans Administration Hospital, Salt Lake City, Utah, has established a computer-assisted multidisciplinary, preadmission psychiatric assessment unit (PAU). The unit was designed to: (i) gather extensive standardized clinical data; (ii) carry out computerized analyses of this information; and (iii) produce reports containing statements regarding tentative diagnosis, an initial problem list and other relevant clinical information. The information can then be compared with specific admission criteria for each treatment unit. This would lead to improved psychiatric intake decision making and ultimately to better care. The computer system is outlined. The assessment procedure for each patient takes approximately five hours. The PAU is staffed by a psychiatric social worker, a clinical psychologist, two health technicians and a secretary-receptionist, and 45 patients a week are assessed. The initial impact of the PAU system appears to be a drop of 14 per cent in the number of in-patient admissions and a rise of 24 per cent in out-patient visits. The PAU system is currently being evaluated in terms of cost efficiency and compared with traditional clinical methods.

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